

# THOMSON

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# 28DF170G

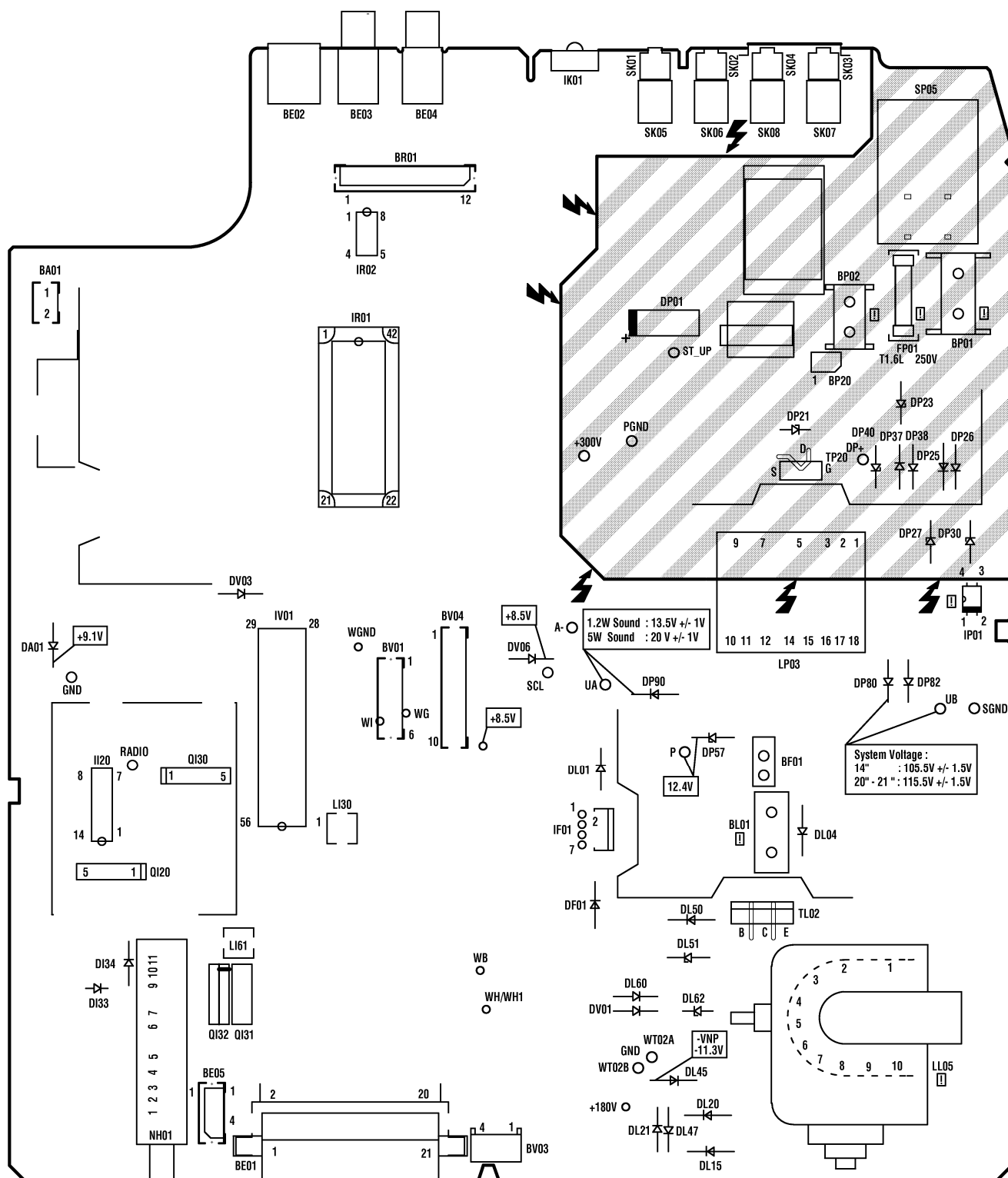
MODEL

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## SERVICE MANUAL

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# LOCATION OF CONTROLS - EMBLACEMENT DES REGLAGES - SERVICE LAGEPLAN POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES



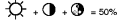
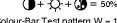
Part of board connected to mains supply.  
Partie du châssis reliée au secteur.  
Primärseite des Netzteils.  
Parte dello chassis collegata alla rete.  
Parte del chasis conectada a la red.



Use isolating mains transformer -  
Utiliser un transformateur isolateur du secteur -  
Trenntrafo verwenden -  
Utilizar un transformador aislador de red -  
Utilizzare un trasformatore per isolarvi dalla rete



ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

|                                               |        |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                          |                                                                         |
|-----------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| U G2 / cutoff                                 | SCREEN | Peak white pattern.<br> = 50%                                                                                                                                                                                                                                                        |  highest output<br>CRT<br>V Collector<br>TTS2,TT62,TT72 | Adjust Screen voltage VG2<br>120V +/- 5V: 14"<br>145V +/- 5V: 20" & 21" |
| FOCUS                                         | LL05   | Contrast = 100%<br>Brightness = 0%<br>Test pattern<br>(standard values)<br>                                                                                                                                                                                                          |                                                         | Sharp picture                                                           |
| <b>(MAIN)</b><br>SYSTEM<br>VOLTAGE<br><br>+UB | -      |  = 50%<br>Colour-Bar Test pattern W = 100%<br>Mire de barres couleur blanc = 100%<br>Farbballen W = 100%<br>Monoscopio delle barre colorate<br>bianco = 100%<br>Mira en color blanco = 100%<br>AV1  |  YPb7<br>DP 80<br>+UB<br>CP88                           | 14" : 105 V +/- 1.5V<br>20" - 21" : 115.5 V +/- 1.5V                    |

SERVICE-MODE



MODE SERVICE



It is necessary to enter the Service Mode in order to carry out alignment of the TV set. Most adjustments can be made with the RCU, except the Focus and Screen voltages.

1. Service Mode Access

- 1.1 With the RCU, switch the TV set into the "Standby" mode.
- 1.2 Switch "Off" the TV set by mains supply switch (wait until LED is dark).
- 1.3 Whilst pressing the "Magenta" (text) button on the RCU switch "On" the TV set using the mains switch.  
Continue to press the "Magenta" (text) button until the Service-setup Sub-menu appears.

|      |      |     |    |    |     |     |
|------|------|-----|----|----|-----|-----|
| VT01 | 1BIL | 2BD | 3B | 4I | 5DI | >1  |
| FFI  |      |     |    |    |     | OFF |

**Important** : The Service Mode cannot be entered if any equipment is connected to the Scart socket, i.e. pin 6 switching voltage present.

2. Service Menu

- 2.1 Navigation
  - Press the   buttons to select the menu line.
  - Press the   buttons to make adjustments or selection of a menu item.

2.2 Service Sub-Menus

- Service Setup Sub-menu - IF Sub-menu - Video Sub-menu  
Geometry Sub-menu - Hotel Menu

2.3 Activation of Service Sub-Menu

To navigate around the Service sub-menu, press the "Magenta" button on the RCU, to step through the sub-menus in the following order:  
... No Menu > Service Setup Sub-Menu > Service IF Sub-Menu > Service Geometry Sub-Menu > Service Video Sub-Menu > Hotel Menu > No Menu > Service Set-up Sub-Menu ... etc.

3. Alignment and storing new function value

- 3.1 The current value of the selected function is displayed in a hexadecimal form to the right of the function name. This value is adjusted by means of the RCU   buttons.
- 3.2 To "STORE" the functions new value whilst in any of the Service Sub-menus, press the "OK" button on the RCU.
- 3.3 To leave the Service Sub-menu press the "Exit" button on the RCU.

4. Temporary exit from Service Mode

- 4.1 To temporarily leave the Service Mode, press the "Exit" button on the RCU. To access the everyday menus, press the "Menu" button on the RCU.
- 4.2 To return to the Service Mode, press the "Magenta" button on the RCU.

5. Leaving the Service Mode

- 5.1 To leave the Service Mode either, switch the TV set into "Standby" or switch "Off" the mains supply.

Le mode service sert au réglage de l'appareil. Toutes les opérations de réglage s'effectuent à l'aide de la télécommande (sauf les réglages de Focus et de tension de grille-écran).

1. Accès au mode service

- 1.1 Commuter le téléviseur en position de veille avec la télécommande.
- 1.2 Eteindre le téléviseur par l'interrupteur secteur (attendre l'extinction complète du voyant).
- 1.3 Maintenir la touche "Magenta" (text) enfoncée et mettre simultanément le téléviseur en marche avec l'interrupteur secteur.  
Ne pas relâcher la touche "Magenta" (text) jusqu'à apparition du sous-menu de Service Setup.

|      |      |     |    |    |     |     |
|------|------|-----|----|----|-----|-----|
| VT01 | 1BIL | 2BD | 3B | 4I | 5DI | >1  |
| FFI  |      |     |    |    |     | OFF |

**Attention** : Le mode service n'est pas accessible si un appareil est connecté à la prise péritelvision.

2. Menu Service

- 2.1 Déplacement
  - Appuyer sur la touche   pour sélectionner une ligne de menu.
  - Appuyer sur la touche   pour un réglage ou une sélection d'une option.

2.2 Sous-Menus du mode service

- Sous- Menu Setup - Sous- Menu FI - Sous- Menu Video -  
Sous- Menu Geometrie - Menu Hotel

2.3 Sélection d'un Sous-Menu

En mode service des courtes pressions sur la touche "Magenta" permet la sélection d'un sous- menu dans l'ordre suivant :  
... Pas de Menu > Sous-menu Setup > Sous-menu FI > Sous-menu Geometrie > Sous-menu Video > Hotel Menu > Pas de Menu > Sous-menu Setup ...

3. Réglage des fonctions sélectionnées; mémorisation

- 3.1 La valeur momentanée de la fonction sélectionnée est indiquée sous forme hexadécimale à droite, à côté de la position à régler et peut être modifiée avec la télécommande par la touche  .
- 3.2 Dans un sous-menu (Service Setup / FI / Geometrie / Video) appuyer sur la touche "OK" pour mémoriser la nouvelle valeur de réglage en NVN (EEPROM).
- 3.3 Appuyer sur la touche "Exit" pour sortir d'un sous-menu.

4. Sortie temporaire du mode service

- 4.1 Utiliser la touche "Exit" de la télécommande.  
Le menu utilisateur peut-être accessible via la touche "Menu".
- 4.2 Pour entrer à nouveau dans le Menu Setup utiliser la touche magenta.

5. Sortie du mode service

- 5.1 Pour sortir du mode service, commuter le téléviseur en position de veille ou le mettre hors service par l'interrupteur secteur.

SERVICE-MODE



Der Service-Mode wird für den Geräteabgleich benötigt. Alle Einstellungen erfolgen mit der Fernbedienung (bis auf Fokuseinstellung und Schirmmitterspannung).

1. Service-Mode einschalten

- 1.1 Mit der Fernbedienung das Fernsehgerät in Stand-by schalten.
- 1.2 Das Gerät mit dem Netzschalter ausschalten (warten bis LED dunkel ist)
- 1.3 Während Sie die magentafarbene Taste (text) auf der Fernbedienung gedrückt halten, schalten Sie das Gerät mit dem Netzschalter ein. Halten Sie die magentafarbene Taste solange gedrückt bis das Service Setup Sub-Menu erscheint.

|      |      |     |    |    |     |     |
|------|------|-----|----|----|-----|-----|
| VT01 | 1BIL | 2BD | 3B | 4I | 5DI | >1  |
| FFI  |      |     |    |    |     | OFF |

**Achtung** : Der Service-Mode lässt sich nicht einschalten, wenn an einer Euro-AV-Buchse ein Gerät aktiviert ist, d.h. die Schaltspannung anliegt.

2. Service Menü

2.1 Navigation

- Drücken Sie die Tasten   zum Auswählen der Menüzeile.
- Drücken Sie die Tasten   zum Einstellen oder Auswählen in einer Menüzeile

2.2 Service Sub-Menü

- Service Setup Sub-Menü - ZF Sub-Menü - Video Sub-Menü,  
Geometrie Sub-Menü - Hotel Menü

2.3 Service Sub-Menü aktivieren

Durch einen jeweils kurzen Druck auf die magentafarbene Taste wird das Service Menü in der folgenden Reihenfolge aktiviert.  
... Kein Menü > Service Setup Sub-Menü > Service ZF Sub-Menü > Service Geometrie Sub-Menü > Service Video Sub-Menü > Hotel Menü > kein Menü > Service Setup Sub-Menü ...

3. Abgleich der gewählten Funktion und Speichern

- 3.1 Der momentane Wert der gewählten Funktion wird hexadezimal rechts neben der abzugeleichenen Position angegeben und kann mit der Taste   auf der Fernbedienung verändert werden.
- 3.2 In den Service Sub-Menüs drücken Sie OK um die neuen Funktionswerte im NVN (EEPROM) zu speichern.
- 3.3 Drücken Sie "Exit" zum Verlassen eines Service Sub-Menüs.

4. Vorübergehendes verlassen des Service-Mode

- 4.1 Auf der Fernbedienung Exit drücken.  
Mit der Taste Menü gelangen Sie zum Menü Übersicht.
- 4.2 Durch Drücken der magentafarbenen Taste gelangen Sie in das Service Setup Sub-Menü.

5. Service-Mode verlassen

- 5.1 Zum Verlassen des Service-Mode das Gerät in Stand By schalten oder mit dem Netzschalter ausschalten.

MODULO SERVICIO



Se necesita al MODO SERVICIO para ajustar el aparato. Todos los ajustes se hacen con el mando a distancia (a excepción de la tensión del sistema, los ajustes del foco y las tensiones de la rejilla de pantalla).

1. Ajustar el Modo Servicio

- 1.1 Con el mando a distancia conectar a STANDBY el televisor.
- 1.2 Desconectar el aparato con el interruptor de la red (esperar hasta que el LED se apague).
- 1.3 Mientras mantiene pulsado el botón "Magenta (texto)" de la UCR, pulse el interruptor de paso de la corriente "On" para encender el televisor. Mantenga pulsado el botón "Magenta (texto)" hasta que aparezca el submenú de la configuración del servicio.

|      |      |     |    |    |     |     |
|------|------|-----|----|----|-----|-----|
| VT01 | 1BIL | 2BD | 3B | 4I | 5DI | >1  |
| FFI  |      |     |    |    |     | OFF |

**Atención** : No se puede conectar el MODO SERVICIO cuando en Eurotoma- AV está activado un aparato, es decir, cuando existe tensión de conexión.

2. Menú Servicio.

- 2.1 Desplazamiento
  - Pulse el botón   para seleccionar la línea del menú.
  - Pulse el botón   para ajustar o seleccionar una opción del menú.

2.2 Submenú Servicio

- Service Setup Sub-menu - IF Sub-menu - Video Sub-menu  
Geometry Sub-menu - Hotel Menu

SERVICE-MODE



Il Service-Mode è necessario per l'allineamento dell'apparecchio. Tutte le regolazioni si effettuano con il telecomando. (a parte la regolazione del fuoco e le tensioni della griglia schermo).

1. Attivazione del Service-Mode

- 1.1 Commutare il televisore in stand-by con il telecomando.
- 1.2 Spegner l'apparecchio con l'interruttore di rete (attendere finché il LED è spento)
- 1.3 Mentre tenete premuto il pulsante "Magenta (testo)" dell' RCU, accendete il televisore utilizzando l'interruttore di rete. Continuate a premere il pulsante "Magenta (testo)" dell' RCU fino all'apparizione del Service Setup Sub Menu

|      |      |     |    |    |     |     |
|------|------|-----|----|----|-----|-----|
| VT01 | 1BIL | 2BD | 3B | 4I | 5DI | >1  |
| FFI  |      |     |    |    |     | OFF |

**Attenzione** : Il Service-Mode non si può attivare se è attivato un apparecchio collegato alla presa di peritelvisione AV, cioè se è presente la tensione ausiliaria.

2. Service Menu

2.1 Navigazione

- Premere i tasti   per selezionare la linea del menu
- Premere i tasti   per la regolazione o la selezione di un elemento del menu

2.2 Services Sub-Menu

- Service Setup Sub-menu - IF Sub-menu - Video Sub-menu  
Geometry Sub-menu - Hotel Menu

2.3 Attivazione del Service Sub-Menu

Nel Service Mode, una breve pressione sul tasto "Magenta" attiverà il Service Menu secondo questa sequenza:  
... No Menu > Service Setup Sub-Menu > Service IF Sub-Menu > Service Geometry Sub-Menu > Service Video Sub-Menu > Hotel Menu > No Menu > Service Setup Sub-Menu ...

3. Taratura della funzione scelta e memorizzazione

- 3.1 Il valore momentaneo della funzione scelta viene indicato in formato esadecimale a destra, accanto alla posizione da allineare e può essere cambiato con il pulsante   del telecomando.
- 3.2 Nel Service Sub-Menu (cioè Service Setup / IF / Geometrie Video Sub Menu), premere "Ok" per MEMORIZZARE i nuovi valori delle funzioni in NVN (EEPROM).
- 3.3 Premere il tasto "Exit" per uscire da qualsiasi Service Sub-Menu.

4. Uscita temporanea dal Service Mode

- 4.1 Premere Exit sul telecomando.  
Al menu di uso quotidiano si accede attraverso il pulsante Menu.
- 4.2 Il Service Setup Sub Menu è accessibile attraverso il tasto "Magenta".

5. Disattivazione del Service-Mode

- 5.1 Per disattivare il ServiceMode, commutare l'apparecchio in stand-by o spegnerlo con l'interruttore di rete.

2.3 Activación del submenú Servicio

Al pulsar brevemente el botón "Magenta" en el modo Servicio, activará el menú Servicio en la secuencia siguiente:  
... No Menu > Service Setup Sub-Menu > Service IF Sub-Menu > Service Geometry Sub-Menu > Service Video Sub-Menu > Hotel Menu

3. Ajuste de la función elegida y almacenamiento

- 3.1 El valor momentáneo de la función elegida es indicado de modo hexadecimal a la derecha, al lado de la posición a ajustar, y puede cambiarse con la tecla   en el mando a distancia.
- 3.2 En el submenú Servicio, es decir, Configuración del servicio/IF/GeometriaSubmenu Video pulse "OK" para ALMACENAR el nuevo valor de las funciones en NVN (EEPROM).
- 3.3 Pulse el botón "Exit" para salir de cualquier submenú Servicio.

4. Salida temporal del Modo Servicio

- 4.1 Pulse Salir en el mando a distancia.  
Con el botón Menu puede acceder aml menú de uso cotidiano.
- 4.2 Puede acceder al submenú de configuración del servicio mediante el botón "Magenta".

5. Salir del Modo Servicio

- 5.1 Conmute el aparato a STANDBY a fin de salir del MODO SERVICIO o desconectar con el interruptor de la red.

|                                                   |                                                   |                                                   |                                                   |                                                   |
|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| <p>1. <b>QUESTION</b></p> <p>2. <b>ANSWER</b></p> | <p>1. <b>QUESTION</b></p> <p>2. <b>ANSWER</b></p> | <p>1. <b>QUESTION</b></p> <p>2. <b>ANSWER</b></p> | <p>1. <b>QUESTION</b></p> <p>2. <b>ANSWER</b></p> | <p>1. <b>QUESTION</b></p> <p>2. <b>ANSWER</b></p> |
|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|

|                       |      |         |    |      |         |    |
|-----------------------|------|---------|----|------|---------|----|
| WN01                  | AFC  | 00 - 3F | 45 | RED  | 00 - 3F | 45 |
| 1BIL 2BD 3B 4I 5DI >1 | IFPL | 00 - 7F | 20 | GRN  | 00 - 3F | 20 |
| FFI OFF               | L'FA | 00 - 7F | 36 | BLU  | 00 - 3F | 36 |
|                       | AGC  | 00 - 3F | 59 | PEAK | < +     | +> |

Test Bar pattern used : 4/3 with a geometric circle.  
Mire utilisée : 4/3 avec un cercle de géométrie.  
Benötigtes Testbild : 4/3 mit geometrischem Kreis.  
Formato Testo utilizzato : 4/3 con cerchio geometrico  
Mira utilizada : 4/3 con círculo geometrico

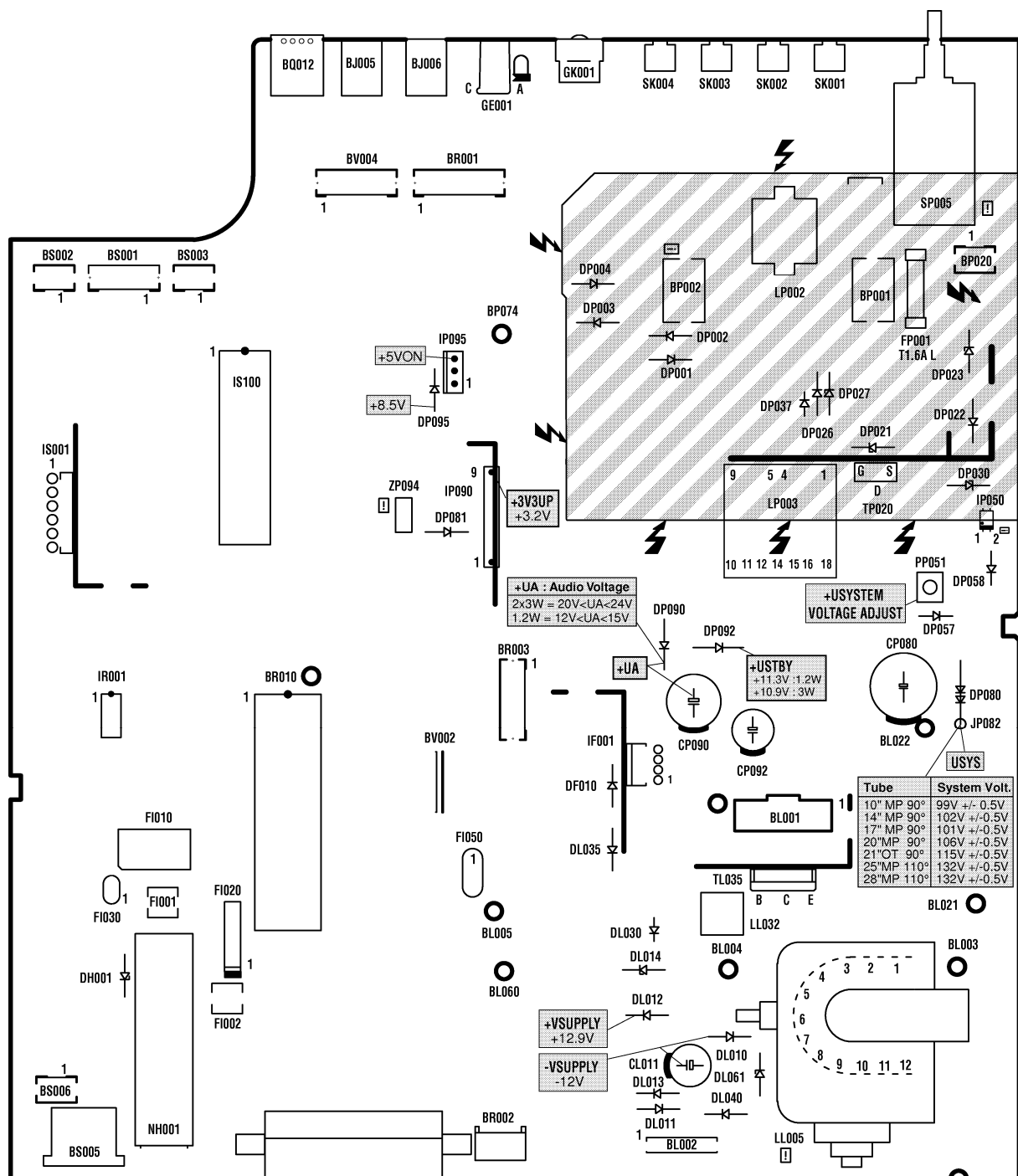
Perform the G2 and the Focus settings beforehand.  
Effectuez au préalable les réglages de G2 et de focus.  
Stellen Sie zuvor G2 und "Focus" ein.  
Effettuare le regolazioni G2 e del Fuoco innanzitutto.  
Efectuar previamente los ajustes de G2 y Foco.

[illegible]

Notes :

- \* Adjust separate for PAL / SECAM and NTSC/AV
- \* Régler séparément pour PAL / SECAM et NTSC/AV
- \* Den Abgleich der Videowerte für PAL, SECAM, NTSC/AV getrennt durchführen.
- \* Regularre separatamente in PAL, SECAM, NTSC/AV.
- \* Realice los ajustes en PAL, SECAM, NTSC/AV por separado

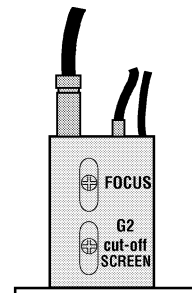
# LOCATION OF CONTROLS - EMBLACEMENT DES REGLAGES - SERVICE LAGEPLAN - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES



Part of board connected to mains supply.  
Partie du châssis reliée au secteur.  
Primärseite des Netzteils.  
Parte dello chassis collegata alla rete.  
Parte del chasis conectada a la red.



Use isolating mains transformer -  
Utiliser un transformateur isolateur du secteur -  
Trenntrafo verwenden -  
Utilizar un transformador aislador de red -  
Utilizzare un trasformatore per isolarvi dalla rete



- SERVICIO o desconectar con el interruptor de la red.

# ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DI REGOLAZIONE - PROCEDIMIENTO DE ALINEACION

| SET-UP LINES |         |
|--------------|---------|
| ID 00 07     |         |
| INIT         | ◀▶      |
| STANDARD     | 00 0-03 |
| OSDCONTR     | 07 0-0F |
| FR           | 00      |

| ID 00.07                                                                                                                                                                                  | Software code |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>INIT</b><br>Initialise TV set.<br>Sets all Service Mode functions stored in the EEPROM to their default values.<br>See below the default values table.                                 |               |
| ⚠ "INIT" copy all service parameters from the ROM to EEPROM. It will be necessary in this case to readjust most of the service mode functions.                                            |               |
| ⚠ "INIT" copie toutes les valeurs par défaut stockées en ROM vers l'EEPROM. Il peut être nécessaire dans ce cas de reprendre la plupart des réglages du mode service.                     |               |
| ⚠ "INIT" kopiert alle Service-Parameter aus dem ROM in das EEPROM. Es ist anschließend notwendig die meisten Service-Funktionen neu abzugleichen.                                         |               |
| ⚠ "INIT" copia tutti i parametri di servizio dalla ROM alla EEPROM. Sarà necessario in seguito regolare alcune funzioni in Service Mode.                                                  |               |
| ⚠ "INIT" copia todos los valores por defecto memorizados en la ROM hacia la EEPROM. Puede ser necesario en el caso de tener que reajustar la mayor parte de los ajustes en Modo Servicio. |               |

| GEOMETRY LINES* |           |
|-----------------|-----------|
| HS              | 20 0-3F   |
| VS              | ◀1A 0-3F▶ |
| VA              | 20 0-3F   |
| SC              | 10 0-3F   |
| VSH             | 20 0-3F   |

|     |  |  |
|-----|--|--|
| HS  |  |  |
| VS  |  |  |
| VA  |  |  |
| SC  |  |  |
| VSH |  |  |

| VIDEO LINES |               |
|-------------|---------------|
| CL          | ◀00 0-0F▶     |
| BLORS*      | 08 0-0F       |
| BLOGS*      | 08 0-0F       |
| WPRS*       | 20 0-3F       |
| WPGS*       | 20 0-3F       |
| PWS*        | 20 20 20 0-3F |
| BKS*        | ON OFF-ON     |
| YD          | 08 0-0F       |

|               |  |                                                                                                                                                                                                                                                                                                                |
|---------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CL            |  | Factory setting.<br>Extension of the peak White range.<br>Réglage usine.<br>Extension des valeurs de réglages du Peak White.<br>Factory Setting.<br>Extension of the peak White range.<br>Factory Setting.<br>Extension of the peak White range.<br>Ajuste de fábrica.<br>Extensión del margen del Peak White. |
| Cutt-off **   |  | = 50%<br>Grey scale test pattern white = 100%<br>= 50%<br>Grey scale test pattern white = 100%                                                                                                                                                                                                                 |
| BLORS / BLORP |  | Black level offset Red SECAM/PAL                                                                                                                                                                                                                                                                               |
| BLOGS / BLOGP |  | Black level offset Green SECAM/PAL                                                                                                                                                                                                                                                                             |
| Drive**       |  | White point                                                                                                                                                                                                                                                                                                    |
| WPRS / WPRP   |  | White point                                                                                                                                                                                                                                                                                                    |
| WPGS / WPGP   |  | White point                                                                                                                                                                                                                                                                                                    |
| WPBS / WPBP   |  | White point                                                                                                                                                                                                                                                                                                    |
| PWS / PWP**   |  | Peak White SECAM/PAL                                                                                                                                                                                                                                                                                           |
| BKS           |  | Black Stretch                                                                                                                                                                                                                                                                                                  |
| YD            |  | Luminance Delay                                                                                                                                                                                                                                                                                                |

| IF LINES |           |
|----------|-----------|
| TOP      | ◀20 0-0F▶ |

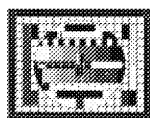
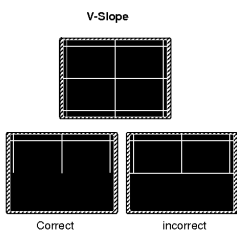
|                                                                                     |  |                 |
|-------------------------------------------------------------------------------------|--|-----------------|
| TOP                                                                                 |  | AGC - Take Over |
| Minimum noise- Minimum de bruit<br>Minimum Rauschen - Rumore minimo<br>Minimo ruido |  |                 |
| ROM Default Value : AGC : 20                                                        |  |                 |

| VIDEO PROCESSOR LINES |           |
|-----------------------|-----------|
| CD0                   | 84 0-FF   |
| CD1                   | 30 0-0F   |
| SYN0                  | ◀30 0-FF▶ |
| SYN1                  | 08 0-FF   |
| DEF                   | 00 0-0F   |
| V10                   | 40 0-FF   |
| V11                   | 00 0-0F   |
| SOUND                 | 00 0-FF   |
| CONT0                 | 48 0-FF   |
| CONT1                 | 00 0-0F   |
| FEAT0                 | 00 0-01   |

|       |                                                                               |
|-------|-------------------------------------------------------------------------------|
| CD0   | Colour Decoder 0 = 84                                                         |
| CD1   | Colour Decoder 1 mono sets: CD1 = 80H stereo sets: CD1 = 00H Factory setting. |
| SYN0  | Synchronisation 0 = 30                                                        |
| SYN1  | Synchronisation 1 = 1C Factory setting.                                       |
| DEF   | Deflection = 00 Factory setting.                                              |
| V10   | Vision IF 0 = 40                                                              |
| V11   | Vision IF 1 = 00 Factory setting.                                             |
| SOUND | Sound = 00 Factory setting.                                                   |
| CONT0 | Control 0 = 40                                                                |
| CONT0 | Control 1 = 00 Factory setting.                                               |
| FEAT0 | Features 0 = 00 Factory setting.                                              |

## DEFAULT VALUES

| OSD      | DESCRIPTION                    | DEFAULT VALUE ( HEX ) |
|----------|--------------------------------|-----------------------|
| ID       | Software                       |                       |
| INIT     | Initialise TV set              |                       |
| STANDARD | RF Norm Group Selection        | 0 (EU)                |
| OSDCONTR | OSD Contrast                   | 03                    |
| FR       | France                         | 00                    |
| HS       | Horizontal shift               | 20                    |
| VS       | Vertical Slope                 | 1A                    |
| VA       | Vertical Amplitude             | 20                    |
| SC       | S-Correction                   | 10                    |
| VSH      | Vertical shift                 | 20                    |
| CL       | Cathode Level                  | 00                    |
| BLORS    | Black level offset Red SECAM   | 8                     |
| BLORP    | Black level offset Red PAL     | 8                     |
| BLOGS    | Black level offset Green SECAM | 8                     |
| BLOGP    | Black level offset Green SECAM | 8                     |
| WPRS     | White point Red SECAM          | 20                    |
| WPRP     | White point Red PAL            | 20                    |
| WPGS     | White point Green SECAM        | 20                    |
| WPGP     | White point Green PAL          | 20                    |
| WPBS     | White point Blue SECAM         | 20                    |
| WPBP     | White point Blue PAL           | 20                    |
| PWS      | Peak White SECAM               | 20                    |
| PWP      | Peak White PAL                 | 20                    |
| BKS      | Black Stretch                  | 01                    |
| YD       | Luminance Delay                | 08                    |
| TOP      | AGC take-over                  | 20                    |
| CD0      | Colour Decoder 0               | 84                    |
| CD1      | Colour Decoder 1               | Mono : 80 Stereo: 00  |
| SYN0     | Synchronisation 0              | 30                    |
| SYN1     | Synchronisation 1              | 1C                    |
| DEF      | Deflection                     | 00                    |
| V10      | Vision IF 0                    | 40                    |
| V11      | Vision IF 1                    | 00                    |
| SOUND    | Sound                          | 00                    |
| CONT0    | Control 0                      | 40                    |
| CONT1    | Control 1                      | 00                    |
| FEAT0    | Features 0                     | 00                    |

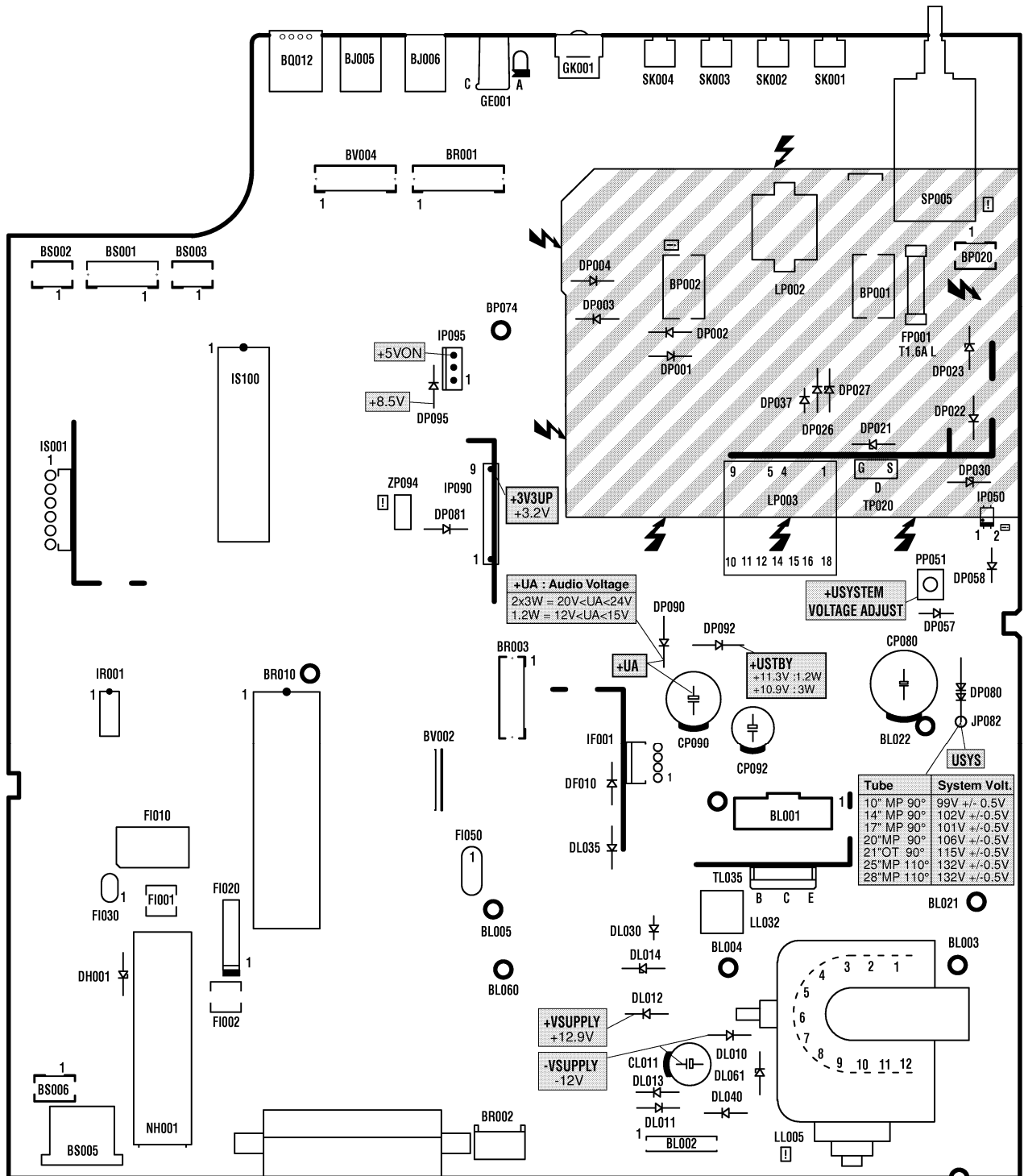


overscan :  
V=107%  
H=107%

\*Perform the G2 and the Focus settings beforehand.  
Effectuez au préalable les réglages de G2 et de focus.  
Stellen Sie zuvor G2 und "Focus" ein.  
Ettetuare le regolazioni G2 e del Fuoco innanzitutto.  
Ettetuare previamente los ajustes de G2 y Foco

\*\* Adjust separate for PAL / SECAM  
\* S \* : Video signal received is SECAM.  
\* P \* : Video signal received is PAL.

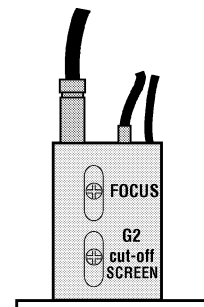
# LOCATION OF CONTROLS - EMBLACEMENT DES REGLAGES - LAGEPLAN EINSTELLER - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES



Part of board connected to mains supply.  
Partie du châssis reliée au secteur.  
Primärseite des Netzteils.  
Parte dello châssis collegata alla rete.  
Parte del chasis conectada a la red



Use isolating mains transformer -  
Utiliser un transformateur isolateur du secteur -  
Trenntrafo verwenden -  
Utilizar un transformador aislador de red -  
Utilizzare un trasformatore per isolarvi dalla rete



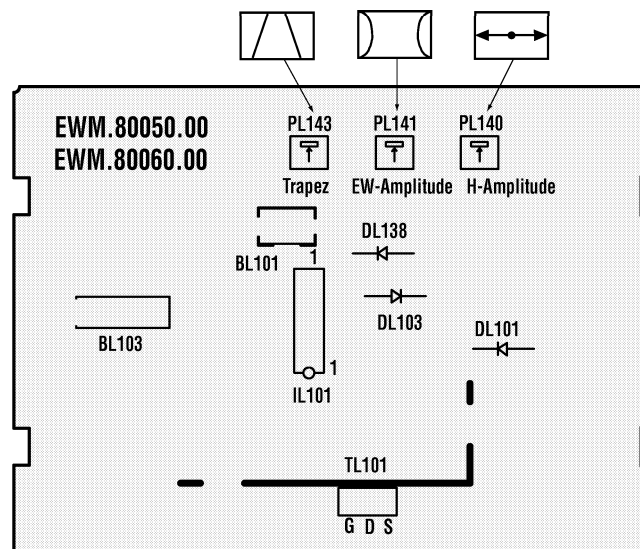
## ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

| <div>U G2 / CUTOFF</div>                                            | <div>LL05</div>  | <div>Peak white pattern</div> <div><div><div><div><div></div></div></div><div><div><div></div></div></div><div><div><div></div></div></div></div><div>= 50%</div></div> | <div><div><div><div></div></div></div><div>highest output</div><div>CRT<br/>IB01:<br/>Pins 9 / 8 / 7</div></div>                                                                                                       | <div><div><div><div></div></div><div>V</div><div>0</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <div><table><tr><th>Tube</th><th>V Cutoff</th></tr><tr><td>10" MP 90°</td><td>125V +/- 3V</td></tr><tr><td>14" MP 90°</td><td>125V +/- 3V</td></tr><tr><td>17" MP 90°</td><td>125V* +/- 3V</td></tr><tr><td>20" MP 90°</td><td>125V* +/- 3V</td></tr><tr><td>21" MP 90°</td><td>125V* +/- 3V</td></tr><tr><td>21" OT 90°</td><td>125V* +/- 3V</td></tr><tr><td>25" MP 110°</td><td>125V* +/- 3V</td></tr></table><div>140V: with IV001: TDA9554PS</div></div> | Tube | V Cutoff | 10" MP 90° | 125V +/- 3V | 14" MP 90° | 125V +/- 3V  | 17" MP 90° | 125V* +/- 3V | 20" MP 90° | 125V* +/- 3V | 21" MP 90°    | 125V* +/- 3V | 21" OT 90° | 125V* +/- 3V | 25" MP 110° | 125V* +/- 3V  |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
|---------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|------------|-------------|------------|--------------|------------|--------------|------------|--------------|---------------|--------------|------------|--------------|-------------|---------------|------|-------|-------|-----------|---------------|------|-------|-------|-----------|---------------|------|-------|-------|------------|---------------|------|-------|-------|------------|---------------|------|-------|-------|--|
| Tube                                                                | V Cutoff         |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 10" MP 90°                                                          | 125V +/- 3V      |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 14" MP 90°                                                          | 125V +/- 3V      |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 17" MP 90°                                                          | 125V* +/- 3V     |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 20" MP 90°                                                          | 125V* +/- 3V     |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 21" MP 90°                                                          | 125V* +/- 3V     |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 21" OT 90°                                                          | 125V* +/- 3V     |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 25" MP 110°                                                         | 125V* +/- 3V     |                                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| <div>FOCUS</div>                                                    | <div>LL05</div>  | <div><div><div><div></div></div></div><div>Contrast = 100%<br/>Brightness = 0%</div><div>Test pattern<br/>(standard values)</div></div>                                 | <div><div><div><div></div></div></div></div>                                                                                                                                                                           | <div>Sharp picture</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| <div><div>MAIN</div><div>SYSTEM VOLTAGE</div><div>+USYS</div></div> | <div>PP051</div> | <div><div><div><div><div></div></div></div><div>= 50%</div></div><div>TV to AV : Black tes pattern</div><div>AV <div><div><div></div></div></div></div></div>           | <div><div><div><div><div></div></div><div>DP 080</div><div><div><div></div></div><div>+USYS</div></div><div><div><div></div></div><div>CP80</div><div><div><div></div></div><div>V</div></div></div></div></div></div> | <div><table><tr><th>Tube</th><th>Usys</th><th>RL090</th><th>JL981-982</th><th>JL991-992</th></tr><tr><td>10" MP 90°</td><td>98V +/- 0.5V</td><td>76k8</td><td>JL981</td><td>JL992</td></tr><tr><td>14" MP 90°</td><td>101V +/- 0.5V</td><td>76k8</td><td>JL982</td><td>JL992</td></tr><tr><td>17" MP 90°</td><td>101V +/- 0.5V</td><td>76k8</td><td>JL982</td><td>JL991</td></tr><tr><td>20"MP 90°</td><td>106V +/- 0.5V</td><td>86k6</td><td>JL981</td><td>JL992</td></tr><tr><td>21"OT 90°</td><td>114V +/- 0.5V</td><td>95k3</td><td>JL982</td><td>JL992</td></tr><tr><td>25"MP 110°</td><td>132V +/- 0.5V</td><td>127k</td><td>JL982</td><td>JL992</td></tr><tr><td>28"MP 110°</td><td>132V +/- 0.5V</td><td>127k</td><td>JL982</td><td>JL992</td></tr></table></div> | Tube                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Usys | RL090    | JL981-982  | JL991-992   | 10" MP 90° | 98V +/- 0.5V | 76k8       | JL981        | JL992      | 14" MP 90°   | 101V +/- 0.5V | 76k8         | JL982      | JL992        | 17" MP 90°  | 101V +/- 0.5V | 76k8 | JL982 | JL991 | 20"MP 90° | 106V +/- 0.5V | 86k6 | JL981 | JL992 | 21"OT 90° | 114V +/- 0.5V | 95k3 | JL982 | JL992 | 25"MP 110° | 132V +/- 0.5V | 127k | JL982 | JL992 | 28"MP 110° | 132V +/- 0.5V | 127k | JL982 | JL992 |  |
| Tube                                                                | Usys             | RL090                                                                                                                                                                   | JL981-982                                                                                                                                                                                                              | JL991-992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 10" MP 90°                                                          | 98V +/- 0.5V     | 76k8                                                                                                                                                                    | JL981                                                                                                                                                                                                                  | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 14" MP 90°                                                          | 101V +/- 0.5V    | 76k8                                                                                                                                                                    | JL982                                                                                                                                                                                                                  | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 17" MP 90°                                                          | 101V +/- 0.5V    | 76k8                                                                                                                                                                    | JL982                                                                                                                                                                                                                  | JL991                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 20"MP 90°                                                           | 106V +/- 0.5V    | 86k6                                                                                                                                                                    | JL981                                                                                                                                                                                                                  | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 21"OT 90°                                                           | 114V +/- 0.5V    | 95k3                                                                                                                                                                    | JL982                                                                                                                                                                                                                  | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 25"MP 110°                                                          | 132V +/- 0.5V    | 127k                                                                                                                                                                    | JL982                                                                                                                                                                                                                  | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 28"MP 110°                                                          | 132V +/- 0.5V    | 127k                                                                                                                                                                    | JL982                                                                                                                                                                                                                  | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |            |             |            |              |            |              |            |              |               |              |            |              |             |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |

## EAST-WEST MODULE - MODULE EST-OUEST - OST-WEST-MODUL - MODULO EST-OVEST - MODULO ESTE-OESTE

|            |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |
|------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| GEOMETRY   | TV : AV1 Test pattern<br>Standard TV - Settings :<br><br> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Correct picture |
| <b>EWM</b> | PL140<br>PL141<br>PL143<br>SERVICE MODE                   | <p><b>GB</b> - Please refer to geometry Mode alignment ( 110° tube ) , page 7, to adjust the East West Module (EWM).</p> <p><b>F</b> - Se référer à la méthode d'alignement des géométries ( tubes 110° ), page 7 pour effectuer les réglages du Module Est-Ouest (EWM).</p> <p><b>D</b> - Abgleich des Ost-West-Modules: Siehe Geometrie-Abgleich (110°), Seite 7.</p> <p><b>I</b> - Per le regolazioni del Modulo Est-Ovest fare riferimento al modo allineamento geometria (tubi 110°), pagina 7.</p> <p><b>E</b> - Para los ajustes del módulo Este-Oeste (EWM) ver la página 7, modo ajuste geometría (tubo 110°)</p> |                 |
|            |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |

## LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES - LAGEPLAN EINSTELLER - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES



It is necessary to enter the Service Mode in order to carry out alignment of the TV set. Most adjustments can be made with the RCU, except the Focus and Screen voltages.

## 1. Service Mode Access

- 1.1 With the RCU, switch the TV set into the "Standby" mode.
- 1.2 Switch "Off" the TV set by mains supply switch (wait until LED is dark).
- 1.3 Whilst pressing the "Magenta (text)" button on the RCU switch "On" the TV set using the mains switch.  
Continue to press the "Magenta (text)" button until the Service-setup Sub-menu appears.

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

## 2. Service Menu

### 2.1 Navigation

- Press the  $\wedge/\vee$  buttons to select the menu line.
- Press the  $\langle/\rangle$  buttons to make adjustments or selection of a menu item.

### 2.2 Service-Menu lines

**Set-up lines** (INIT, STANDARD, OSDCONTR) -

**Geometry lines** (HS, VS, VA, SC, VSH)

**Video lines** (CL, BLORS/BLORP, BLOGS/BLOGP, WPRS/WPRP, WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) -

**IF lines** (TOP) -

**Video processor** (CD0, CD1, SYN0, SYN1, DEF, VI0, VI1, SOUND, CONT0, CONT1, FEAT0).

### 2.3 Activation of a line :

The first line (1) is continuously displayed. Sequential selection of the others lines in the Service Menu is possible by pressing the  $\wedge/\vee$  buttons on the RCU. The selected line will be highlighted in YELLOW text.

## 3. Alignment and storing new function value

- 3.1 The current value of the selected function is displayed in a hexadecimal form to the right of the function name. This value is adjusted by means of the RCU  $\langle/\rangle$  buttons.
- 3.2 The values will be stored in the non-volatile memory when leaving the service menu.
- 3.3 To leave the Service menu press the "Exit" button on the RCU.

## 4. Temporary exit from Service Mode

- 4.1 To temporary leave the Service Mode, press the "Exit" button on the RCU. To access the everyday menus, press the "Menu" button on the RCU.
- 4.2 To return to the Service Menu, press the "Magenta" button on the RCU

## 5. Leaving the Service Mode

- 5.1 To EXIT the Service Menu either press, the "Standby" button on the RCU or switch "Off" the mains supply to the TV.

Le mode service sert au réglage de l'appareil. Toutes les opérations de réglage s'effectuent à l'aide de la télécommande (sauf les réglages de Focus et de tension de grille-écran).

## 1. Accès au mode service

- 1.1 Commuter le téléviseur en position de veille avec la télécommande.
- 1.2 Eteindre le téléviseur par l'interrupteur secteur (attendre l'extinction complète du voyant).
- 1.3 Maintenir la touche "Magenta (text)" enfoncée et mettre simultanément le téléviseur en marche avec l'interrupteur secteur.  
Ne pas relâcher la touche "Magenta (text)" jusqu'à apparition du menu

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

## 2. Menu Service

### 2.1 Déplacement

- Appuyer sur la touche  $\wedge/\vee$  pour sélectionner une ligne de menu.
- Appuyer sur la touche  $\langle/\rangle$  pour un réglage ou une sélection d'une option.

### 2.2 Lignes de Menus du mode service

**Set-up lines** (INIT, STANDARD, OSDCONTR) -

**Geometry lines** (HS, VS, VA, SC, VSH)

**Video lines** (CL, BLORS/BLORP, BLOGS/BLOGP, WPRS/WPRP, WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) -

**IF lines** (TOP) -

**Video processor** (CD0, CD1, SYN0, SYN1, DEF, VI0, VI1, SOUND, CONT0, CONT1, FEAT0).

### 2.3 Sélection d'une ligne:

La première ligne (1) du menu est toujours affichée. De courtes pressions sur la touche " $\wedge/\vee$ " sélectionnent séquentiellement les lignes (2) ou (3) du menu de service. La ligne activée est de couleur jaune.

## 3. Réglage des fonctions sélectionnées; mémorisation

- 3.1 La valeur momentanée de la fonction sélectionnée est indiquée sous forme hexadécimale à droite, à côté de la position à régler et peut être modifiée avec la télécommande par la touche  $\langle/\rangle$ .
- 3.2 La valeur de réglage est mémorisée dans la mémoire non volatile en sortie de mode service.
- 3.3 Appuyer sur la touche "Exit" pour sortir d'un sous-menu.

## 4. Sortie temporaire du mode service

- 4.1 Utiliser la touche "Exit" de la télécommande.  
Le menu utilisateur peut-être accessible via la touche "Menu".
- 4.2 Pour entrer à nouveau dans le Menu Setup utiliser la touche magenta.

## 5. Sortie du mode service

- 5.1 Pour sortir du mode service, commuter le téléviseur en position de veille ou le mettre hors service par l'interrupteur secteur.



## SERVICE-MODE



Der Service-Mode wird für den Geräteabgleich benötigt. Alle Einstellungen erfolgen mit der Fernbedienung (bis auf Fokuseinstellung und Schirmgitterspannung).

### 1. Service-Mode einschalten

- 1.1 Mit der Fernbedienung das Fernsehgerät in Stand-by schalten.
- 1.2 Das Gerät mit dem Netzschalter ausschalten (warten bis LED dunkel ist)
- 1.3 Während Sie die margentafarbene Taste (**text**) auf der Fernbedienung gedrückt halten, schalten Sie das Gerät mit dem Netzschalter ein. Halten Sie die margentafarbene Taste solange gedrückt bis das Service Setup Sub-Menü erscheint.

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

### 2. Service Menü

#### 2.1 Navigation

- Drücken Sie die Tasten  $\wedge / \vee$  zum Auswählen der Menüzeile.
- Drücken Sie die  $\langle / \rangle$  -Tasten um eine Menüfunktion anzuwählen oder abzugleichen.

#### 2.2 Service-Menü Zeilen

**Set-up lines** (INIT,STANDARD,OSDCONTR) -  
**Geometry lines** (HS,VS, VA, SC,VSH)  
**Video lines** (CL, BLORS/BLORP,BLOGS/BLOGP,WPRS/WPRP,WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) - **IF lines** (TOP) -  
**Videoprocessor** (CD0, CD1, SYN0, SYN1, DEF,VI0,VI1,SOUND,CONT0, CONT1,FEAT0).

#### 2.3 Aktivierung einer Menüzeile:

Die erste Zeile (1) wird ständig angezeigt. Die Anwahl der Zeilen (2) und (3) im Service-Menü ist durch Drücken der  $\wedge / \vee$  - Tasten möglich. Die gewählte Zeile wird in gelber Farbe dargestellt.

### 3. Abgleich der gewählten Funktion und Speichern

- 3.1 Der momentane Wert der gewählten Funktion wird hexadezimal rechts neben der abzugleichenden Position angegeben und kann mit der Taste  $\langle / \rangle$  auf der Fernbedienung verändert werden.
- 3.2 Die Werte werden nach dem Verlassen des Service-Menüs im nichtflüchtigen Speicher (EEPROM) abgelegt.
- 3.3 Drücken Sie **"Exit"** zum Verlassen eines Service Sub-Menüs.

### 4. Vorübergehendes verlassen des Service-Mode

- 4.1 Auf der Fernbedienung Exit drücken.  
Mit der Tasten Menü gelangen Sie zum Menü-Übersicht.
- 4.2 Durch Drücken der margentafarbenen Taste gelangen Sie in das Service Setup Sub-Menü.

### 5. Service-Mode verlassen

- 5.1 Zum Verlassen des Service-Mode das Gerät in Stand By schalten oder mit dem Netzschalter ausschalten.

## MODO SERVICIO



Se necesita el MODO SERVICIO para ajustar el aparato. Todos los ajustes se hacen con el mando a distancia (a excepción de la tensión del sistema, los ajustes del foco y las tensiones de la rejilla de pantalla).

### 1. Ajustar el Modo Servicio

- 1.1 Con el mando a distancia conectar a STANDBY el televisor.
- 1.2 Desconectar el aparato con el interruptor de la red (esperar hasta que el LED se apague).
- 1.3 Mientras mantiene pulsado el botón **"Magenta (texto)"** de la UCR, pulse el interruptor general de red para encender el televisor. Mantenga pulsado el botón **"Magenta (texto)"** hasta que aparezca el submenú de la configuración del servicio.

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

### 2. Menú Servicio.

#### 2.1 Desplazamiento

- Pulse el botón  $\wedge / \vee$  para seleccionar la línea del menú.
- Pulse el botón  $\langle / \rangle$  para ajustar o seleccionar una opción del menú.

## SERVICE-MODE



Il Service-Mode è necessario per l'allineamento dell'apparecchio. Tutte le regolazioni si effettuano con il telecomando. (tranne le regolazioni del fuoco e le tensioni della griglia schermo).

### 1. Attivazione del Service-Mode

- 1.1 Commutare il televisore in stand-by con il telecomando.
- 1.2 Spegner l'apparecchio con l'interruttore di rete (attendere finché il LED è spento)
- 1.3 Mentre tenete premuto il pulsante **"Magenta (testo)"** del RCU, accendete il televisore utilizzando l'interruttore di rete. Continuate a premere il pulsante **"Magenta (testo)"** del RCU fino all'apparizione del Service Setup Sub Menu

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

### 2. Service Menu

#### 2.1 Navigazione

- Premere i tasti  $\wedge / \vee$  per selezionare la linea del menu
- Premere i tasti  $\langle / \rangle$  per la regolazione o la selezionz di un elemento del menu

#### 2.2 Linee Service Menu

**Set-up lines** (INIT,STANDARD,OSDCONTR) -  
**Geometry lines** (HS,VS, VA, SC,VSH)  
**Video lines** (CL, BLORS/BLORP,BLOGS/BLOGP,WPRS/WPRP,WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) - **IF lines** (TOP) -  
**Videoprocessor** (CD0, CD1, SYN0, SYN1, DEF,VI0,VI1,SOUND,CONT0, CONT1,FEAT0).

#### 2.3 Attivazione di una linea :

La prima linea (1) è continuamente visualizzata. La selezione delle linee successive (2) o (3) è possibile in service menu premendo i tasti  $\wedge / \vee$ . la linea selezionata sarà visualizzata di colore giallo.

### 3. Taratura della funzione scelta e memorizzazione

- 3.1 Il valore momentaneo della funzione scelta viene indicato in formato esadecimale a destra, accanto alla posizione da allineare e può essere cambiato con il pulsante  $\langle / \rangle$  del telecomando.
- 3.2 I valori verranno memorizzati nella memoria num quando verrà lasciato il menù service mode.
- 3.3 Premere il tasto **"Exit"** per uscire da qualsiasi Service Sub Menu.

### 4. Uscita temporanea dal Service Mode

- 4.1 Premere Exit sul telecomando.  
Al menu di uso quotidiano si accede attraverso il pulsante Menu.
- 4.2 Il Service Setup Sub Menu è accessibile attraverso il tasto **"Magenta"**.

### 5. Disattivazione del Service-Mode

- 5.1 Per disattivare il Service Mode, commutare l'apparecchio in stand-by o spegnerlo con l'interruttore di rete.

#### 2.2 Líneas del menú del Modo Servicio

**Set-up lines** (INIT,STANDARD,OSDCONTR) -  
**Geometry lines** (HS,VS, VA, SC,VSH)  
**Video lines** (CL, BLORS/BLORP,BLOGS/BLOGP,WPRS/WPRP,WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) - **IF lines** (TOP) -  
**Videoprocessor** (CD0, CD1, SYN0, SYN1, DEF,VI0,VI1,SOUND,CONT0, CONT1,FEAT0).

#### 2.3 Activación de una línea :

La primera línea (1) se muestra siempre en la pantalla. La selección secuencial de las líneas (2) y (3), es posible pulsando las teclas  $\wedge / \vee$ . La línea seleccionada es la que está en color amarillo

### 3. Ajuste de la función elegida y almacenamiento

- 3.1 El valor momentáneo de la función elegida es indicado de modo hexadecimal a la derecha, al lado de la posición a ajustar, y puede cambiarse con la tecla  $\langle / \rangle$  o bien en el mando a distancia.
- 3.2 Los valores serán memorizados en la EEPROM al salir del menú del Modo Servicio.
- 3.3 Pulse el botón **"Exit"** para salir de cualquier submenú Servicio.

### 4. Salida temporal del Modo Servicio

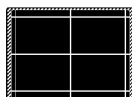
- 4.1 Pulse Salir en el mando a distancia.  
Con el botón Menu puede acceder al menú de uso cotidiano.
- 4.2 Puede acceder al submenú de configuración del servicio mediante el botón **"Magenta"**.

### 5. Salir del Modo Servicio

- 5.1 Conmute el aparato a STANDBY a fin de salir del MODO SERVICIO o desconectar con el interruptor de la red.

| SET-UP LINES                                                                                                                                                                              |                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| ID 02.11                                                                                                                                                                                  |                                                                              |
| INIT                                                                                                                                                                                      |                                                                              |
| STANDARD*                                                                                                                                                                                 | 00 0-03                                                                      |
| KEY                                                                                                                                                                                       | ◀ OFF OFF-ON ▶                                                               |
| OSDCONTR                                                                                                                                                                                  | 03 0-0F                                                                      |
| WBF-R*                                                                                                                                                                                    | 88 0-FF                                                                      |
| SOC1-0                                                                                                                                                                                    | 2F 0-3F                                                                      |
| OIFP**                                                                                                                                                                                    | 20 0-3F                                                                      |
| ID 00.07                                                                                                                                                                                  |                                                                              |
| INIT                                                                                                                                                                                      |                                                                              |
| Initialise TV set.<br>Sets all Service Mode functions stored in the EEPROM to their default values.<br>See below the default values table.                                                |                                                                              |
| ⚠ "INIT" copy all service parameters from the ROM to EEPROM. It will be necessary in this case to readjust most of the service mode functions.                                            |                                                                              |
| ⚠ "INIT" copie toutes les valeurs par défaut stockées en ROM vers l'EEPROM. Il peut être nécessaire dans ce cas de reprendre la plupart des réglages du mode service.                     |                                                                              |
| ⚠ "INIT" kopiert alle Service-Parameter aus dem ROM in das EEPROM. Es ist anschließend notwendig die meisten Service-Funktionen neu abzugleichen                                          |                                                                              |
| ⚠ "INIT" copia tutti i parametri di servizio dalla ROM alla EEPROM. Sarà necessario in seguito regolare alcune funzioni in Service Mode.                                                  |                                                                              |
| ⚠ "INIT" copia todos los valores por defecto memorizados en la ROM hacia la EEPROM. Puede ser necesario en el caso de tener que reajustar la mayor parte de los ajustes en Modo Servicio. |                                                                              |
| STANDARD<br>RF Norm Group Selection                                                                                                                                                       |                                                                              |
| 00 EU                                                                                                                                                                                     | BG / LL*                                                                     |
| 01 FR                                                                                                                                                                                     | LL* / BG                                                                     |
| 02 UK                                                                                                                                                                                     | PAL I only                                                                   |
| 03 DK                                                                                                                                                                                     | DKK' PAL, SECAM                                                              |
| ROM Default Value :<br>TX 807 C / CS Europe : 00 EU                                                                                                                                       |                                                                              |
| KEY                                                                                                                                                                                       | Key lock ON/OFF...<br>Default value : OFF                                    |
| OSDCONTR                                                                                                                                                                                  | factory Setting<br>Full-page video text contrast OSDCONTR = 03H              |
| WBF-R*                                                                                                                                                                                    | factory Setting<br>Timing of "wide blanking" WBF-R = 88H                     |
| SOC1-0                                                                                                                                                                                    | Specific TDA9554PS (UOC-N2)<br>Peak White Limiting factory Setting SOC1=2FH  |
| OIF                                                                                                                                                                                       | Specific TDA9554PS (UOC-N2)<br>Offset IF demodulator factory Setting OIF=20H |

V-Slope



Correct



incorrect

| GEOMETRY LINES*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| HS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 20 0-3F     |
| VS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ◀ 1A 0-3F ▶ |
| VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 20 0-3F     |
| SC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10 0-3F     |
| VSH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 20 0-3F     |
| HS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |
| VS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |
| V_Slope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |
| <ul style="list-style-type: none"> <li>Apply a test pattern signal to the TV with a single horizontal and vertical line on the screen.</li> <li>Select the "VS" line of the menu.</li> <li>The bottom half of the screen will go black.</li> <li>Adjust VS until the centre line of the pattern is just invisible.</li> <li>Leave the line "V_Slope".</li> <li>Switch the test pattern signal to the crosshatch geometry pattern.</li> <li>Perform the geometry adjustments described below.</li> </ul>             |             |
| <ul style="list-style-type: none"> <li>Appliquer une mire de barres avec seulement une ligne blanche horizontale en milieu de l'écran.</li> <li>Sélectionner la ligne "V-Slope".</li> <li>La moitié basse de l'écran devient noire.</li> <li>Aligner "V_Slope" pour que la ligne médiane soit à peine non visible.</li> <li>Commencer la mise en mode de réglage de géométrie (quadrillage).</li> <li>Effectuer les réglages de géométrie ci-après.</li> </ul>                                                      |             |
| <ul style="list-style-type: none"> <li>Speisen Sie ein Testbild mit einem horizontalen Strich in der Bildmitte ein.</li> <li>Wählen Sie im Menü die Funktion "V-Slope" an.</li> <li>Die untere Bildhälfte wird dunkel.</li> <li>Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet.</li> <li>Verlassen Sie die Funktion "V-Slope".</li> <li>Speisen Sie ein Gittertestbild ein.</li>Nehmen Sie die Geometrieinstellungen wie nebenstehend beschrieben vor. </ul>                                   |             |
| <ul style="list-style-type: none"> <li>Applicare un monoscopio con un'unica linea bianca orizzontale al centro dello schermo.</li> <li>Selezionare la riga "V slope" del menu. La parte bassa dello schermo viene oscurata.</li> <li>Allineare la "Vertical Slope" in modo che la linea centrale sia appena visibile.</li> <li>Abbandonare la riga "V slope".</li> <li>Posizionare il monoscopio.</li> <li>Effettuare le regolazioni di geometria descritte in precedenza.</li> <li>Memorizzare.</li> </ul>         |             |
| <ul style="list-style-type: none"> <li>Aplique una carta de ajuste con sólo una línea blanca horizontal y una vertical en el centro de la pantalla.</li> <li>Seleccionar en el menú la línea "V-Slope". La mitad inferior de la pantalla se pondrá oscura.</li> <li>Ajuste "V-Slope" justo hasta que la línea horizontal sea invisible.</li> <li>Cambiar la carta de ajuste a "cuadrícula" y efectuar los ajustes de geometría descritos a continuación.</li> <li>Antes de salir, memorizar con "Store".</li> </ul> |             |
| VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |
| SC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |
| VSH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |

\* According to software version.

\*\* S \* : Video signal received is SECAM.

\* P \* : Video signal received is PAL.

| VIDEO LINES                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|-----|-----|-------|-----|-----|-----|-----------|-----|-----|-----|------------|-----|-------|-----|------------|-----|
| CL                                                        | ◀ 00 0-0F ▶                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BLORS*                                                    | 08 0-0F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BLOGS*                                                    | 08 0-0F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPRS*                                                     | 20 0-3F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPGS*                                                     | 20 0-3F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPBS*                                                     | 20 0-3F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| PWS*                                                      | 20 20 20 0-3F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BKS*                                                      | ON OFF-ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| YD                                                        | 08 0-0F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| CL<br>Cathode Level                                       | Factory setting.<br>Extension of the peak White range.<br>Réglage usine.<br>Extension des valeurs de réglages du Peak White.<br>Fabrik-Einstellung (Umfang des Spitzenweiß Einbereiches)<br>Factory Setting.<br>Extension of the peak White range.<br>Ajuste de fábrica<br>Extensión del margen del Peak White.                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| Cut-off **                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  +  + <br>= 50%<br>Grey scale test pattern<br>white =100%<br><br>↑ grey  |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BLORS / BLORP<br>Black Level<br>Offset Red<br>SECAM/PAL   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BLOGS / BLOGP<br>Black Level<br>Offset Green<br>SECAM/PAL |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| Drive**                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  +  + <br>= 50%<br>Grey scale test pattern<br>white =100%<br><br>↑ white |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPRS / WPRP<br>White Point<br>Red SECAM/PAL               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPGS / WPGP<br>White Point<br>Green SECAM/PAL             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPBS / WPBP<br>White Point<br>Blue SECAM/PAL              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| PWS / PWP**<br>Peak White<br>SECAM/PAL                    |  +  +  = 50%<br>colourimeter<br><table><tr><th>Sets</th><th>Nits</th><th>Sets</th><th>Nits</th></tr><tr><td>10"</td><td>500</td><td>21"OT</td><td>420</td></tr><tr><td>14"</td><td>450</td><td>21"MP 90"</td><td>450</td></tr><tr><td>17"</td><td>450</td><td>25"MP 110"</td><td>400</td></tr><tr><td>20"FB</td><td>450</td><td>28"MP 110"</td><td>300</td></tr></table> |                                                                                                                                                                                                                                                                                                                                                                                                                      | Sets | Nits | Sets | Nits | 10" | 500 | 21"OT | 420 | 14" | 450 | 21"MP 90" | 450 | 17" | 450 | 25"MP 110" | 400 | 20"FB | 450 | 28"MP 110" | 300 |
| Sets                                                      | Nits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sets                                                                                                                                                                                                                                                                                                                                                                                                                 | Nits |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 10"                                                       | 500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 21"OT                                                                                                                                                                                                                                                                                                                                                                                                                | 420  |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 14"                                                       | 450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 21"MP 90"                                                                                                                                                                                                                                                                                                                                                                                                            | 450  |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 17"                                                       | 450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 25"MP 110"                                                                                                                                                                                                                                                                                                                                                                                                           | 400  |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 20"FB                                                     | 450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 28"MP 110"                                                                                                                                                                                                                                                                                                                                                                                                           | 300  |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BKS<br>Black Stretch                                      | Factory Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| YD<br>Luminance<br>Delay                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Use ◀ ▶<br>to adapt the image                                                                                                                                                                                                                                                                                                                                                                                        |      |      |      |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |

\*Perform the G2 and the Focus settings beforehand.

Effectuez au préalable les réglages de G2 et de focus.

Stellen Sie zuvor G2 und "Focus" ein.

Effettuare le regolazioni G2 e del Fuoco innanzitutto.

Efectuar previamente los ajustes de G2 y Foco

\*\* Adjust separate for PAL / SECAM

\* S \* : Video signal received is SECAM.

\* P \* : Video signal received is PAL.

| IF LINES                                                                                                                                               |                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TOP                                                                                                                                                    | ◀ 20 0-0F ▶                                                                                                                                                                                                                        |
| FFI                                                                                                                                                    | 00 0-01                                                                                                                                                                                                                            |
| ACL*                                                                                                                                                   | 00 0-01                                                                                                                                                                                                                            |
| TOP                                                                                                                                                    | AGC - Take Over                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>Minimum noise- Minimum de bruit</li> <li>Minimum Rauschen - Rumore minimo</li> <li>Minimo ruido</li> </ul>      |                                                                                                                                                                                                                                    |
|                                                                                                                                                        |                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>Set TOP to 00</li> <li>Adjust TOP for maximum gain of IF signal.</li> <li>Reduce IF level about 8dB.</li> </ul> |                                                                                                                                                                                                                                    |
| ROM Default Value : AGC : 20                                                                                                                           |                                                                                                                                                                                                                                    |
| FFI*                                                                                                                                                   | Fast Filter (IF / PLL)                                                                                                                                                                                                             |
| Fast Filter IF-PLL                                                                                                                                     | <ul style="list-style-type: none"> <li>Fast Filter (IF / PLL)</li> <li>Filtere rapide (FI / PLL)</li> <li>Schnelles Filter (ZF / PLL)</li> <li>Filtro / rapido (IF / PLL)</li> <li>00 : Europ</li> <li>Factory Setting.</li> </ul> |
| ACL*                                                                                                                                                   | Automatic Colour limiting                                                                                                                                                                                                          |
| ACL=00                                                                                                                                                 | Factory Setting.                                                                                                                                                                                                                   |
| VIDEO PROCESSOR LINES                                                                                                                                  |                                                                                                                                                                                                                                    |
| CD0                                                                                                                                                    | 84 0-FF                                                                                                                                                                                                                            |
| CD1                                                                                                                                                    | 00 0-FF                                                                                                                                                                                                                            |
| SYN0                                                                                                                                                   | ◀ 30 0-FF ▶                                                                                                                                                                                                                        |
| SYN1                                                                                                                                                   | 08 0-FF                                                                                                                                                                                                                            |
| DEF                                                                                                                                                    | 00 0-0F                                                                                                                                                                                                                            |
| V10                                                                                                                                                    | 00 0-0F                                                                                                                                                                                                                            |
| V11                                                                                                                                                    | 00 0-0F                                                                                                                                                                                                                            |
| SOUND                                                                                                                                                  | 00 0-FF                                                                                                                                                                                                                            |
| CONT0                                                                                                                                                  | 46 0-FF                                                                                                                                                                                                                            |
| CONT1                                                                                                                                                  | 00 0-0F                                                                                                                                                                                                                            |
| SOUND1                                                                                                                                                 | 00 0-FF                                                                                                                                                                                                                            |
| FEAT0                                                                                                                                                  | 00 0-01                                                                                                                                                                                                                            |
| FEAT1                                                                                                                                                  | 00 0-01                                                                                                                                                                                                                            |
| LOCK                                                                                                                                                   | 00 0-01                                                                                                                                                                                                                            |
| LIMIT                                                                                                                                                  | 00 0-01                                                                                                                                                                                                                            |
| CD0                                                                                                                                                    | - Colour Decoder 0 = 84                                                                                                                                                                                                            |
| CD1                                                                                                                                                    | - Colour Decoder 1                                                                                                                                                                                                                 |
| mono sets: CD1 = 80H                                                                                                                                   |                                                                                                                                                                                                                                    |
| stereo sets: CD1 = 00H                                                                                                                                 |                                                                                                                                                                                                                                    |
| Factory Setting.                                                                                                                                       |                                                                                                                                                                                                                                    |
| SYN0                                                                                                                                                   | - Synchronisation 0 = 30                                                                                                                                                                                                           |
| SYN1                                                                                                                                                   | - Synchronisation 1 = 1C                                                                                                                                                                                                           |
| Factory Setting.                                                                                                                                       |                                                                                                                                                                                                                                    |
| DEF                                                                                                                                                    | - Deflection = 00                                                                                                                                                                                                                  |
| Factory Setting.                                                                                                                                       |                                                                                                                                                                                                                                    |
| V10                                                                                                                                                    | - Vision IF 0 = 40                                                                                                                                                                                                                 |
| V11                                                                                                                                                    | - Vision IF 1 = 00                                                                                                                                                                                                                 |
| Factory Setting.                                                                                                                                       |                                                                                                                                                                                                                                    |
| SOUND                                                                                                                                                  | - Sound = 00                                                                                                                                                                                                                       |
| Factory Setting.                                                                                                                                       |                                                                                                                                                                                                                                    |
| CONT0                                                                                                                                                  | - Control 0 = 40                                                                                                                                                                                                                   |
| CONT0                                                                                                                                                  | - Control 1 = 00                                                                                                                                                                                                                   |
| Factory Setting.                                                                                                                                       |                                                                                                                                                                                                                                    |
| FEAT0                                                                                                                                                  | - Features 0 = 00                                                                                                                                                                                                                  |
| Factory Setting.                                                                                                                                       |                                                                                                                                                                                                                                    |

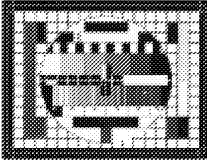
\* According to software version.

| OSD      | DESCRIPTION                    | DEFAULT VALUE ( HEX )   |
|----------|--------------------------------|-------------------------|
| ID       | Software                       |                         |
| INIT     | Initialise TV set              |                         |
| STANDARD | RF Norm Group Selection        | 0 (EU)                  |
| KEY      | Key Lock                       | OFF                     |
| OSDCONTR | OSD Contrast                   | 03                      |
| WBF-R    | Timing of wide blanking        | 88                      |
| SOC1-0   | Peak White Limiting            | 08                      |
| OIFS     | Offset IF demodulator          | 20                      |
| FR       | France                         | 00                      |
| HS       | Horizontal Shift               | 20                      |
| VS       | Vertical Slope                 | 1A                      |
| VA       | Vertical Amplitude             | 20                      |
| SC       | S-Correction                   | 10                      |
| VSH      | Vertical Shift                 | 20                      |
| CL       | Cathode Level                  | 00                      |
| BLORS    | Black Level Offset Red SECAM   | 8                       |
| BLORP    | Black Level Offset Red PAL     | 8                       |
| BLOGS    | Black Level Offset Green SECAM | 8                       |
| BLOGP    | Black Level Offset Green SECAM | 8                       |
| WPRS     | White Point Red SECAM          | 20                      |
| WPRP     | White Point Red PAL            | 20                      |
| WPGS     | White Point Green SECAM        | 20                      |
| WPGP     | White Point Green PAL          | 20                      |
| WPBS     | White Point Blue SECAM         | 20                      |
| WPBP     | White Point Blue PAL           | 20                      |
| PWS      | Peak White SECAM               | 20                      |
| PWP      | Peak White PAL                 | 20                      |
| BKS      | Black Stretch                  | 01                      |
| YD       | Luminance Delay                | 08                      |
| TOP      | AGC Take-Over                  | 20                      |
| FFI      | Fast Filter IF-PLL             | 00                      |
| ACL      | Automatic Colour limiting      | 00                      |
| CD0      | Colour Decoder 0               | 84                      |
| CD1      | Colour Decoder 1               | Mono : 80<br>Stereo: 00 |
| SYN0     | Synchronisation 0              | 30                      |
| SYN1     | Synchronisation 1              | 1C                      |
| DEF      | Deflection                     | 00                      |
| V10      | Vision IF 0                    | 40                      |
| V11      | Vision IF 1                    | 00                      |
| SOUND    | Sound                          | 00                      |
| CONT0    | Control 0                      | 40                      |
| CONT1    | Control 1                      | 00                      |
| FEAT0    | Features 0                     | 00                      |

## GEOMETRY MODE ALIGNMENT

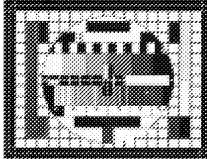
### 90° tube

Signal : 50 Hz - 4/3 test pattern

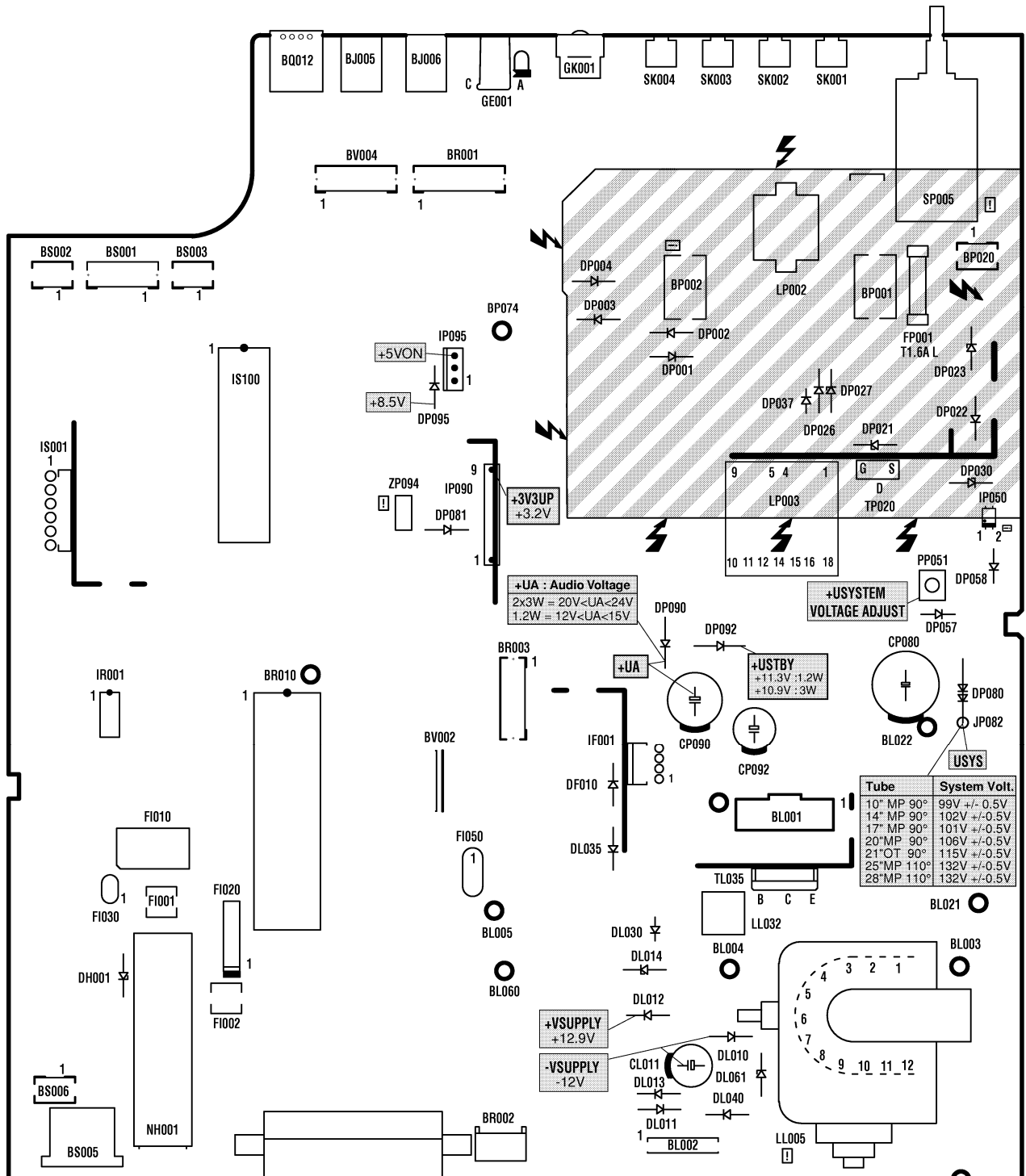
|                                |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4 / 3<br/>standard mode</p> |  | <p>Overscan V=107% , H=107%</p> <p>1 - Adjust Horizontal Centering (HS)</p>  <p>2 - Adjust Vertical centering (VSH) and Vertical amplitude 107% (VA)<br/>3 - Adjust Vertical Slope (VS) and linearity (SC)</p>    <p>4-If necessary repeat VSH, VA alignment to 7% overscan.</p> |
|--------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 110° tube

Signal : 50 Hz - 4/3 test pattern

|                                |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4 / 3<br/>standard mode</p> |  | <p>Overscan V=107% , H=107%</p> <p><b>EAST-WEST MODULE</b></p> <p>1 - PL140 : Turn fully counterclockwise.</p> <p><b>MAIN BOARD</b></p> <p>2 - Adjust Horizontal Centering (HS)</p>  <p>3 - Adjust Vertical centering (VSH) and Vertical amplitude 107% (VA)<br/>4 - Adjust Vertical Slope (VS) and linearity (SC)</p>    <p>5 - If necessary repeat VSH, VA alignment to 7% overscan.</p> <p><b>EAST-WEST MODULE</b></p> <p>6 - PL140 : Adjust Horizontal amplitude with PL140 for optimum overscan</p>  <p>7 - PL141 :Adjust Pincushion.</p>  <p>8 - PL143 : Adjust Trapezium</p>  <p>9 -If necessary repeat Horizontal amplitude, pincushion correction and trapezium alignment</p> |
|--------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

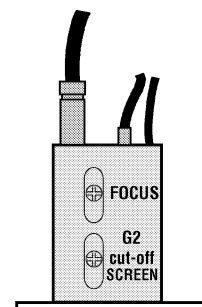
# LOCATION OF CONTROLS - EMBLACEMENT DES REGLAGES - LAGEPLAN EINSTELLER - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES



Part of board connected to mains supply.  
Partie du châssis reliée au secteur.  
Primärseite des Netzteils.  
Parte dello chassis collegata alla rete.  
Parte del chasis conectada a la red



Use isolating mains transformer -  
Utiliser un transformateur isolateur du secteur -  
Trenntrafo verwenden -  
Utilizar un transformador aislador de red -  
Utilizzare un trasformatore per isolarvi dalla rete



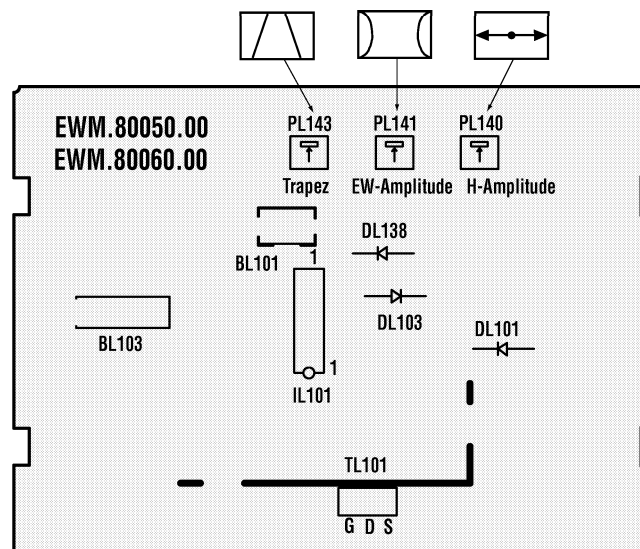
# ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

| U G2 / CUTOFF                                          | LL05          | <p>Peak white pattern</p> <p> = 50%</p>                                              | <p>highest output</p> <p>CRT<br/>IB01:<br/>Pins 9 / 8 / 7</p> | <p>V</p> <p>0</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <table><tr><th>Tube</th><th>V Cutoff</th></tr><tr><td>10" MP 90°</td><td>125V +/- 3V</td></tr><tr><td>14" MP 90°</td><td>125V +/- 3V</td></tr><tr><td>17" MP 90°</td><td>125V* +/- 3V</td></tr><tr><td>20" MP 90°</td><td>125V* +/- 3V</td></tr><tr><td>21" MP 90°</td><td>125V* +/- 3V</td></tr><tr><td>21" OT 90°</td><td>125V* +/- 3V</td></tr><tr><td>25" MP110°</td><td>125V* +/- 3V</td></tr></table> <p>140V: with IV001: TDA9554PS</p> | Tube | V Cutoff | 10" MP 90° | 125V +/- 3V | 14" MP 90° | 125V +/- 3V  | 17" MP 90° | 125V* +/- 3V | 20" MP 90° | 125V* +/- 3V | 21" MP 90°    | 125V* +/- 3V | 21" OT 90° | 125V* +/- 3V | 25" MP110° | 125V* +/- 3V  |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
|--------------------------------------------------------|---------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|------------|-------------|------------|--------------|------------|--------------|------------|--------------|---------------|--------------|------------|--------------|------------|---------------|------|-------|-------|-----------|---------------|------|-------|-------|-----------|---------------|------|-------|-------|------------|---------------|------|-------|-------|------------|---------------|------|-------|-------|--|
| Tube                                                   | V Cutoff      |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 10" MP 90°                                             | 125V +/- 3V   |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 14" MP 90°                                             | 125V +/- 3V   |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 17" MP 90°                                             | 125V* +/- 3V  |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 20" MP 90°                                             | 125V* +/- 3V  |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 21" MP 90°                                             | 125V* +/- 3V  |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 21" OT 90°                                             | 125V* +/- 3V  |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 25" MP110°                                             | 125V* +/- 3V  |                                                                                      |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| FOCUS                                                  | LL05          | <p>Contrast = 100%<br/>Brightness = 0%</p> <p>Test pattern<br/>(standard values)</p> |                                                               | Sharp picture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| <div>MAIN</div> <p>SYSTEM<br/>VOLTAGE</p> <p>+USYS</p> | PP051         | <p> = 50%</p> <p>TV to AV : Black tes pattern</p> <p>AV </p>                         | <p>DP 080</p> <p>+USYS</p> <p>CP80</p> <p>V</p>               | <table><tr><th>Tube</th><th>Usys</th><th>RL090</th><th>JL981-982</th><th>JL991-992</th></tr><tr><td>10" MP 90°</td><td>98V +/- 0.5V</td><td>76k8</td><td>JL981</td><td>JL992</td></tr><tr><td>14" MP 90°</td><td>101V +/- 0.5V</td><td>76k8</td><td>JL982</td><td>JL992</td></tr><tr><td>17" MP 90°</td><td>101V +/- 0.5V</td><td>76k8</td><td>JL982</td><td>JL991</td></tr><tr><td>20"MP 90°</td><td>106V +/- 0.5V</td><td>86k6</td><td>JL981</td><td>JL992</td></tr><tr><td>21"OT 90°</td><td>114V +/- 0.5V</td><td>95k3</td><td>JL982</td><td>JL992</td></tr><tr><td>25"MP 110°</td><td>132V +/- 0.5V</td><td>127k</td><td>JL982</td><td>JL992</td></tr><tr><td>28"MP 110°</td><td>132V +/- 0.5V</td><td>127k</td><td>JL982</td><td>JL992</td></tr></table> | Tube                                                                                                                                                                                                                                                                                                                                                                                                                                           | Usys | RL090    | JL981-982  | JL991-992   | 10" MP 90° | 98V +/- 0.5V | 76k8       | JL981        | JL992      | 14" MP 90°   | 101V +/- 0.5V | 76k8         | JL982      | JL992        | 17" MP 90° | 101V +/- 0.5V | 76k8 | JL982 | JL991 | 20"MP 90° | 106V +/- 0.5V | 86k6 | JL981 | JL992 | 21"OT 90° | 114V +/- 0.5V | 95k3 | JL982 | JL992 | 25"MP 110° | 132V +/- 0.5V | 127k | JL982 | JL992 | 28"MP 110° | 132V +/- 0.5V | 127k | JL982 | JL992 |  |
| Tube                                                   | Usys          | RL090                                                                                | JL981-982                                                     | JL991-992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 10" MP 90°                                             | 98V +/- 0.5V  | 76k8                                                                                 | JL981                                                         | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 14" MP 90°                                             | 101V +/- 0.5V | 76k8                                                                                 | JL982                                                         | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 17" MP 90°                                             | 101V +/- 0.5V | 76k8                                                                                 | JL982                                                         | JL991                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 20"MP 90°                                              | 106V +/- 0.5V | 86k6                                                                                 | JL981                                                         | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 21"OT 90°                                              | 114V +/- 0.5V | 95k3                                                                                 | JL982                                                         | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 25"MP 110°                                             | 132V +/- 0.5V | 127k                                                                                 | JL982                                                         | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |
| 28"MP 110°                                             | 132V +/- 0.5V | 127k                                                                                 | JL982                                                         | JL992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |            |             |            |              |            |              |            |              |               |              |            |              |            |               |      |       |       |           |               |      |       |       |           |               |      |       |       |            |               |      |       |       |            |               |      |       |       |  |

## EAST-WEST MODULE - MODULE EST-OUEST - OST-WEST-MODUL - MODULO EST-OVEST - MODULO ESTE-OESTE

|            |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |
|------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| GEOMETRY   | TV : AV1 Test pattern<br>Standard TV - Settings :<br><br> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Correct picture |
| <b>EWM</b> | PL140<br>PL141<br>PL143<br>SERVICE MODE                   | <p><b>GB</b> - Please refer to geometry Mode alignment ( 110° tube ) , page 7, to adjust the East West Module (EWM).</p> <p><b>F</b> - Se référer à la méthode d'alignement des géométries ( tubes 110° ), page 7 pour effectuer les réglages du Module Est-Ouest (EWM).</p> <p><b>D</b> - Abgleich des Ost-West-Modules: Siehe Geometrie-Abgleich (110°), Seite 7.</p> <p><b>I</b> - Per le regolazioni del Modulo Est-Ovest fare riferimento al modo allineamento geometria (tubi 110°), pagina 7.</p> <p><b>E</b> - Para los ajustes del módulo Este-Oeste (EWM) ver la página 7, modo ajuste geometría (tubo 110°)</p> |                 |
|            |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |

## LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES - LAGEPLAN EINSTELLER - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES



## SERVICE-MODE



It is necessary to enter the Service Mode in order to carry out alignment of the TV set. Most adjustments can be made with the RCU, except the Focus and Screen voltages.

### 1. Service Mode Access

- 1.1 With the RCU, switch the TV set into the "**Standby**" mode.
- 1.2 Switch "**Off**" the TV set by mains supply switch (wait until LED is dark).
- 1.3 Whilst pressing the "**Magenta** (text)" button on the RCU switch "**On**" the TV set using the mains switch.  
Continue to press the "**Magenta** (text)" button until the Service-setup Sub-menu appears.

ID 00.07

(1)

INIT < >

(2)

STANDARD 00 0-03

(3)

### 2. Service Menu

#### 2.1 Navigation

- Press the / buttons to select the menu line.
- Press the / buttons to make adjustments or selection of a menu item.

#### 2.2 Service-Menu lines

**Set-up lines** (INIT, STANDARD, OSDCONTR) -  
**Geometry lines** (HS, VS, VA, SC, VSH)  
**Video lines** (CL, BLORS/BLORP, BLOGS/BLOGP, WPRS/WPRP, WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) -  
**IF lines** (TOP) -  
**Video processor** (CD0, CD1, SYN0, SYN1, DEF, VI0, VI1, SOUND, CONT0, CONT1, FEAT0).

#### 2.3 Activation of a line :

The first line (1) is continuously displayed. Sequential selection of the others lines in the Service Menu is possible by pressing the / buttons on the RCU. The selected line will be highlighted in YELLOW text.

### 3. Alignment and storing new function value

- 3.1 The current value of the selected function is displayed in a hexadecimal form to the right of the function name. This value is adjusted by means of the RCU / buttons.
- 3.2 The values will be stored in the non-volatile memory when leaving the service menu.
- 3.3 To leave the Service menu press the "**Exit**" button on the RCU.

### 4. Temporary exit from Service Mode

- 4.1 To temporary leave the Service Mode, press the "**Exit**" button on the RCU. To access the everyday menus, press the "**Menu**" button on the RCU.
- 4.2 To return to the Service Menu, press the "**Magenta**" button on the RCU

### 5. Leaving the Service Mode

- 5.1 To **EXIT** the Service Menu either press, the "**Standby**" button on the RCU or switch "**Off**" the mains supply to the TV.

## MODE SERVICE



Le mode service sert au réglage de l'appareil. Toutes les opérations de réglage s'effectuent à l'aide de la télécommande (sauf les réglages de Focus et de tension de grille-écran).

### 1. Accès au mode service

- 1.1 Commuter le téléviseur en position de veille avec la télécommande.
- 1.2 Eteindre le téléviseur par l'interrupteur secteur (attendre l'extinction complète du voyant).
- 1.3 Maintenir la touche "**Magenta** (text)" enfoncée et mettre simultanément le téléviseur en marche avec l'interrupteur secteur.  
Ne pas relâcher la touche "**Magenta** (text)" jusqu'à apparition du menu

ID 00.07

(1)

INIT

(2)

STANDARD 00 0-03

(3)

### 2. Menu Service

#### 2.1 Déplacement

- Appuyer sur la touche / pour sélectionner une ligne de menu.
- Appuyer sur la touche / pour un réglage ou une sélection d'une option.

#### 2.2 Lignes de Menus du mode service

**Set-up lines** (INIT, STANDARD, OSDCONTR) -  
**Geometry lines** (HS, VS, VA, SC, VSH)  
**Video lines** (CL, BLORS/BLORP, BLOGS/BLOGP, WPRS/WPRP, WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) - **IF lines** (TOP) -  
**Video processor** (CD0, CD1, SYN0, SYN1, DEF, VI0, VI1, SOUND, CONT0, CONT1, FEAT0).

#### 2.3 Sélection d'une ligne:

La première ligne (1) du menu est toujours affichée.  
De courtes pressions sur la touche " / " sélectionnent séquentiellement les lignes (2) ou (3) du menu de service.  
La ligne activée est de couleur jaune.

### 3. Réglage des fonctions sélectionnées; mémorisation

- 3.1 La valeur momentanée de la fonction sélectionnée est indiquée sous forme hexadécimale à droite, à côté de la position à régler et peut être modifiée avec la télécommande par la touche / .
- 3.2 La valeur de réglage est mémorisée dans la mémoire non volatile en sortie de mode service.
- 3.3 Appuyer sur la touche "**Exit**" pour sortir d'un sous-menu.

### 4. Sortie temporaire du mode service

- 4.1 Utiliser la touche "**Exit**" de la télécommande.  
Le menu utilisateur peut-être accessible via la touche "**Menu**".
- 4.2 Pour entrer à nouveau dans le Menu Setup utiliser la touche magenta.

### 5. Sortie du mode service

- 5.1 Pour sortir du mode service, commuter le téléviseur en position de veille ou le mettre hors service par l'interrupteur secteur.

## SERVICE-MODE



Der Service-Mode wird für den Geräteabgleich benötigt. Alle Einstellungen erfolgen mit der Fernbedienung (bis auf Fokuseinstellung und Schirmgitterspannung).

### 1. Service-Mode einschalten

- 1.1 Mit der Fernbedienung das Fernsehgerät in Stand-by schalten.
- 1.2 Das Gerät mit dem Netzschalter ausschalten (warten bis LED dunkel ist)
- 1.3 Während Sie die margentafarbene Taste (**text**) auf der Fernbedienung gedrückt halten, schalten Sie das Gerät mit dem Netzschalter ein. Halten Sie die margentafarbene Taste solange gedrückt bis das Service Setup Sub-Menü erscheint.

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

### 2. Service Menü

#### 2.1 Navigation

-Drücken Sie die Tasten  $\Delta$  /  $\nabla$  zum Auswählen der Menüzeile.  
-Drücken Sie die  $\leftarrow$  /  $\rightarrow$  -Tasten um eine Menüfunktion anzuwählen oder abzugleichen.

#### 2.2 Service-Menü Zeilen

**Set-up lines** (INIT,STANDARD,OSDCONTR) -  
**Geometry lines** (HS,VS, VA, SC,VSH)  
**Video lines** (CL, BLORS/BLORP,BLOGS/BLOGP,WPRS/WPRP,WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) - **IF lines** (TOP) -  
**Videoprocessor** (CD0, CD1, SYN0, SYN1, DEF,VI0,VI1,SOUND,CONT0, CONT1,FEAT0).

#### 2.3 Aktivierung einer Menüzeile:

Die erste Zeile (1) wird ständig angezeigt. Die Anwahl der Zeilen (2) und (3) im Service-Menü ist durch Drücken der  $\Delta$  /  $\nabla$  -Tasten möglich. Die gewählte Zeile wird in gelber Farbe dargestellt.

### 3. Abgleich der gewählten Funktion und Speichern

- 3.1 Der momentane Wert der gewählten Funktion wird hexadezimal rechts neben der abzugleichenden Position angegeben und kann mit der Taste  $\leftarrow$  /  $\rightarrow$  auf der Fernbedienung verändert werden.
- 3.2 Die Werte werden nach dem Verlassen des Service-Menüs im nichtflüchtigen Speicher (EEPROM) abgelegt.
- 3.3 Drücken Sie "**Exit**" zum Verlassen eines Service Sub-Menüs.

### 4. Vorübergehendes verlassen des Service-Mode

- 4.1 Auf der Fernbedienung Exit drücken.  
Mit der Tasten Menü gelangen Sie zum Menü-Übersicht.
- 4.2 Durch Drücken der margentafarbenen Taste gelangen Sie in das Service Setup Sub-Menü.

### 5. Service-Mode verlassen

- 5.1 Zum Verlassen des Service-Mode das Gerät in Stand By schalten oder mit dem Netzschalter ausschalten.

## MODOSERVICIO



Se necesita el MODO SERVICIO para ajustar el aparato. Todos los ajustes se hacen con el mando a distancia (a excepción de la tensión del sistema, los ajustes del foco y las tensiones de la rejilla de pantalla).

### 1. Ajustar el Modo Servicio

- 1.1 Con el mando a distancia conectar a STANDBY el televisor.
- 1.2 Desconectar el aparato con el interruptor de la red (esperar hasta que el LED se apague).
- 1.3 Mientras mantiene pulsado el botón "**Magenta** (texto)" de la UCR, pulse el interruptor general de red para encender el televisor.  
Mantenga pulsado el botón "**Magenta** (texto)" hasta que aparezca el submenú de la configuración del servicio.

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

### 2. Menú Servicio.

#### 2.1 Desplazamiento

- Pulse el botón  $\Delta$  /  $\nabla$  para seleccionar la línea del menú.
- Pulse el botón  $\leftarrow$  /  $\rightarrow$  para ajustar o seleccionar una opción del menú.

## SERVICE-MODE



Il Service-Mode è necessario per l'allineamento dell'apparecchio. Tutte le regolazioni si effettuano con il telecomando. (tranne le regolazioni del fuoco e le tensioni della griglia schermo).

### 1. Attivazione del Service-Mode

- 1.1 Commutare il televisore in stand-by con il telecomando.
- 1.2 Spegner l'apparecchio con l'interruttore di rete (attendere finché il LED è spento)
- 1.3 Mentre tenete premuto il pulsante "**Magenta** (testo)" del RCU, accendete il televisore utilizzando l'interruttore di rete. Continuate a premere il pulsante "**Magenta** (testo)" del RCU fino all'apparizione del Service Setup Sub Menu

|                  |     |
|------------------|-----|
| ID 00.07         | (1) |
| INIT             | (2) |
| STANDARD 00 0-03 | (3) |

### 2. Service Menu

#### 2.1 Navigazione

- Premere i tasti  $\Delta$  /  $\nabla$  per selezionare la linea del menu
- Premere i tasti  $\leftarrow$  /  $\rightarrow$  per la regolazione o la selezionz di un elemento del menu

#### 2.2 Linee Service Menu

**Set-up lines** (INIT,STANDARD,OSDCONTR) -  
**Geometry lines** (HS,VS, VA, SC,VSH)  
**Video lines** (CL, BLORS/BLORP,BLOGS/BLOGP,WPRS/WPRP,WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) - **IF lines** (TOP) -  
**Videoprocessor** (CD0, CD1, SYN0, SYN1, DEF,VI0,VI1,SOUND,CONT0, CONT1,FEAT0).

#### 2.3 Attivazione di una linea :

La prima linea (1) è continuamente visualizzata. La selezione delle linee successive (2) o (3) è possibile in service menu premendo i tasti  $\Delta$  /  $\nabla$ . la linea selezionata sarà visualizzata di colore giallo.

### 3. Taratura della funzione scelta e memorizzazione

- 3.1 Il valore momentaneo della funzione scelta viene indicato in formato esadecimale a destra, accanto alla posizione da allineare e può essere cambiato con il pulsante  $\leftarrow$  /  $\rightarrow$  del telecomando.
- 3.2 I valori verranno memorizzati nella memoria num quando verrà lasciato il menù service mode.
- 3.3 Premere il tasto "**Exit**" per uscire da qualsiasi Service Sub Menu.

### 4. Uscita temporanea dal Service Mode

- 4.1 Premere Exit sul telecomando.  
Al menu di uso quotidiano si accede attraverso il pulsante Menu.
- 4.2 Il Service Setup Sub Menu è accessibile attraverso il tasto "**Magenta**".

### 5. Disattivazione del Service-Mode

- 5.1 Per disattivare il Service Mode, commutare l'apparecchio in stand-by o spegnerlo con l'interruttore di rete.

#### 2.2 Líneas del menú del Modo Servicio

**Set-up lines** (INIT,STANDARD,OSDCONTR) -  
**Geometry lines** (HS,VS, VA, SC,VSH)  
**Video lines** (CL, BLORS/BLORP,BLOGS/BLOGP,WPRS/WPRP,WPGS/WPGP, WPBS/WBPB, PWS/PWP, BKS, YD) - **IF lines** (TOP) -  
**Videoprocessor** (CD0, CD1, SYN0, SYN1, DEF,VI0,VI1,SOUND,CONT0, CONT1,FEAT0).

#### 2.3 Activación de una línea :

La primera línea (1) se muestra siempre en la pantalla. La selección secuencial de las líneas (2) y (3), es posible pulsando las teclas  $\Delta$  /  $\nabla$ . La línea seleccionada es la que está en color amarillo

### 3. Ajuste de la función elegida y almacenamiento

- 3.1 El valor momentáneo de la función elegida es indicado de modo hexadecimal a la derecha, al lado de la posición a ajustar, y puede cambiarse con la tecla  $\leftarrow$  o bien  $\rightarrow$  en el mando a distancia.
- 3.2 Los valores serán memorizados en la EEPROM al salir del menú del Modo Servicio.
- 3.3 Pulse el botón "**Exit**" para salir de cualquier submenú Servicio.

### 4. Salida temporal del Modo Servicio

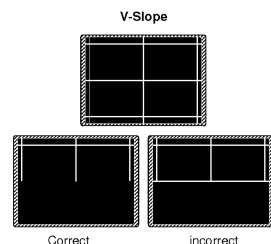
- 4.1 Pulse Salir en el mando a distancia.  
Con el botón Menu puede acceder al menú de uso cotidiano.
- 4.2 Puede acceder al submenú de configuración del servicio mediante el botón "**Magenta**".

### 5. Salir del Modo Servicio

- 5.1 Conmute el aparato a STANDBY a fin de salir del MODO SERVICIO o desconectar con el interruptor de la red.

# ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DI REGOLAZIONE - PROCEDIMIENTO DE ALINEACION

| SET-UP LINES                                                                                                                                                                             |                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| ID 02.11                                                                                                                                                                                 |                                                                 |
| INIT                                                                                                                                                                                     |                                                                 |
| STANDARD*                                                                                                                                                                                | 00 0-03                                                         |
| KEY                                                                                                                                                                                      | ◀ OFF OFF-ON ▶                                                  |
| OSDCONTR                                                                                                                                                                                 | 03 0-0F                                                         |
| WBF-R*                                                                                                                                                                                   | 88 0-FF                                                         |
| SOC1-0                                                                                                                                                                                   | 2F 0-3F                                                         |
| OIFP**                                                                                                                                                                                   | 20 0-3F                                                         |
| ID 00.07                                                                                                                                                                                 |                                                                 |
| INIT                                                                                                                                                                                     |                                                                 |
| Initialise TV set.<br>Sets all Service Mode functions stored in the EEPROM to their default values.<br>See below the default values table.                                               |                                                                 |
| ⚠ "INIT" copy all service parameters from the ROM to EEPROM. It will be necessary in this case to readjust most of the service mode functions.                                           |                                                                 |
| ⚠ "INIT" copie toutes les valeurs par défaut stockées en ROM vers l'EEPROM. Il peut être nécessaire dans ce cas de reprendre la plupart des réglages du mode service.                    |                                                                 |
| ⚠ "INIT" kopiert alle Service-Parameter aus dem ROM in das EEPROM. Es ist anschließend notwendig die meisten Service-Funktionen neu abzugleichen                                         |                                                                 |
| ⚠ "INIT" copia tutti i parametri di servizio dalla ROM alla EEPROM. Sarà necessario in seguito regolare alcune funzioni in Service Mode.                                                 |                                                                 |
| ⚠ "INIT" copia todos los valores por defecto memorizados en la ROM hacia la EEPROM. Puede ser necesario en el caso de tener que reajustar la mayor parte de los ajustes en Modo Servicio |                                                                 |
| STANDARD<br>RF Norm Group Selection                                                                                                                                                      |                                                                 |
| 00 EU                                                                                                                                                                                    | BG / LL'                                                        |
| 01 FR                                                                                                                                                                                    | LL' / BG                                                        |
| 02 UK                                                                                                                                                                                    | PAL I only                                                      |
| 03 DK                                                                                                                                                                                    | DKK' PAL, SECAM                                                 |
| ROM Default Value :<br>TX 807 C / CS Europe : 00 EU                                                                                                                                      |                                                                 |
| KEY                                                                                                                                                                                      | Key lock ON/OFF...<br>Default value : OFF                       |
| OSDCONTR                                                                                                                                                                                 | factory Setting<br>Full-page video text contrast OSDCONTR = 03H |
| WBF-R*                                                                                                                                                                                   | factory Setting<br>Timing of "wide blanking" WBF-R = 88H        |
| SOC1-0                                                                                                                                                                                   | Specific TDA9554PS<br>Peak White Limiting (UOC-N2)              |
| OIF                                                                                                                                                                                      | factory Setting SOC1=2FH                                        |
| Offset IF demodulator                                                                                                                                                                    | Specific TDA9554PS<br>(UOC-N2)<br>factory Setting OIF=20H       |



Correct

incorrect

| GEOMETRY LINES*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| HS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 20 0-3F     |
| VS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ◀ 1A 0-3F ▶ |
| VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 20 0-3F     |
| SC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10 0-3F     |
| VSH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20 0-3F     |
| HS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |
| VS<br>V_Slope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |
| <ul style="list-style-type: none"> <li>Apply a test pattern signal to the TV with a single horizontal and vertical line on the screen.</li> <li>Select the "VS" line of the menu.</li> <li>The bottom half of the screen will go black.</li> <li>Adjust VS until the centre line of the pattern is just invisible.</li> <li>Leave the line "V_Slope".</li> <li>Switch the test pattern signal to the crosshatch geometry pattern.</li> <li>Perform the geometry adjustments described below.</li> </ul>            |             |
| <ul style="list-style-type: none"> <li>Appliquer une mire de barres avec seulement une ligne blanche horizontale et verticale en milieu de l'écran.</li> <li>Sélectionner la ligne "V_Slope".</li> <li>La moitié basse de l'écran devient noire.</li> <li>Aligner "V_Slope" pour que la ligne médiane soit à peine non visible.</li> <li>Commencer la mise en mode de réglage de géométrie (quadrillage).</li> <li>Effectuer les réglages de géométrie ci-après.</li> </ul>                                        |             |
| <ul style="list-style-type: none"> <li>Speisen Sie ein Testbild mit einem horizontalen Strich in der Bildmitte ein.</li> <li>Wählen Sie im Menü die Funktion "V-Slope" an.</li> <li>Die untere Bildhälfte wird dunkel.</li> <li>Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet.</li> <li>Verlassen Sie die Funktion "V-Slope".</li> <li>Speisen Sie ein Gittertestbild ein.</li> <li>Nehmen Sie die Geometrieeinstellungen wie nebenstehend beschrieben vor.</li> </ul>                       |             |
| <ul style="list-style-type: none"> <li>Applicare un testoscopo con un'unica linea bianca orizzontale al centro dello schermo</li> <li>Selezionare la riga "V slope" del menu. La parte bassa dello schermo viene oscurata.</li> <li>Allineare la "Vertical Slope" in modo che la linea centrale sia appena visibile</li> <li>Abbandonare la riga "V slope".</li> <li>Posizionare il monoscopio</li> <li>Effettuare le regolazioni di geometria descritte in precedenza</li> <li>Memorizzare.</li> </ul>            |             |
| <ul style="list-style-type: none"> <li>Aplique una carta de ajuste con sólo una línea blanca horizontal y una vertical en el centro de la pantalla.</li> <li>Seleccionar en el menú, la línea "V-Slope". La mitad inferior de la pantalla se pondrá oscura.</li> <li>Ajuste "V-Slope" justo hasta que la línea horizontal sea invisible.</li> <li>Cambiar la carta de ajuste a "cuadrícula" y efectuar los ajustes de geometría descritos a continuación</li> <li>Antes de salir, memorizar con "Store"</li> </ul> |             |
| VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |
| SC<br>S-Correction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |
| VSH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |

\* According to software version.

\*\* S \* : Video signal received is SECAM.

\* P \* : Video signal received is PAL.

| VIDEO LINES                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                              |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|-------|------|-----|-----|-------|-----|-----|-----|-----------|-----|-----|-----|------------|-----|-------|-----|------------|-----|
| CL                                            | ◀ 00 0-0F ▶                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                              |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BLORS*                                        | 08                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0-0F                                                                                                                                                                                                                                         |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BLOGS*                                        | 08                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0-0F                                                                                                                                                                                                                                         |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPRS*                                         | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0-3F                                                                                                                                                                                                                                         |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPGS*                                         | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0-3F                                                                                                                                                                                                                                         |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPBS*                                         | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0-3F                                                                                                                                                                                                                                         |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| PWS*                                          | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20 20 0-3F                                                                                                                                                                                                                                   |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BKS*                                          | ON                                                                                                                                                                                                                                                                                                                                                                                                                                                       | OFF-ON                                                                                                                                                                                                                                       |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| YD                                            | 08                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0-0F                                                                                                                                                                                                                                         |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| CL<br>Cathode Level                           | Factory setting.<br>Extension of the peak White range.<br>Réglage usine.<br>Extension des valeurs de réglages du Peak White.<br>Fabrik-Einstellung<br>(Umfang des Spitzenweiß Einbereiches)<br>Factory Setting.<br>Extension of the peak White range.<br>Ajuste de fábrica.<br>Extensión del margen del Peak White.                                                                                                                                      |                                                                                                                                                                                                                                              |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| Cut-off **                                    |                                                                                                                                                                                                                                                                                                                                                                       | <br>= 50%<br>Grey scale test pattern<br>white =100%<br><br>↑ grey      |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| Drive**                                       |                                                                                                                                                                                                                                                                                                                                                                       | <br>= 50%<br>Grey scale test pattern<br>white =100%<br><br>↑ white     |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPRS / WPRP<br>White Point<br>Red SECAM/PAL   |                                                                                                                                                                                                                                                                                                                                                                     | <br>= 50%<br>Grey scale test pattern<br>white =100%<br><br>↑ white |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPGS / WPGP<br>White Point<br>Green SECAM/PAL |                                                                                                                                                                                                                                                                                                                                                                     | <br>= 50%<br>Grey scale test pattern<br>white =100%<br><br>↑ white |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| WPBS / WPBP<br>White Point<br>Blue SECAM/PAL  |                                                                                                                                                                                                                                                                                                                                                                     | <br>= 50%<br>Grey scale test pattern<br>white =100%<br><br>↑ white |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| PWS / PWP**                                   |  = 50%<br>colourimeter<br><table><tr><th>Setts</th><th>Nits</th><th>Setts</th><th>Nits</th></tr><tr><td>10"</td><td>500</td><td>21"OT</td><td>420</td></tr><tr><td>14"</td><td>450</td><td>21"MP 90"</td><td>450</td></tr><tr><td>17"</td><td>450</td><td>25"MP 110"</td><td>400</td></tr><tr><td>20"FB</td><td>450</td><td>28"MP 110"</td><td>300</td></tr></table> |                                                                                                                                                                                                                                              | Setts | Nits | Setts | Nits | 10" | 500 | 21"OT | 420 | 14" | 450 | 21"MP 90" | 450 | 17" | 450 | 25"MP 110" | 400 | 20"FB | 450 | 28"MP 110" | 300 |
| Setts                                         | Nits                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Setts                                                                                                                                                                                                                                        | Nits  |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 10"                                           | 500                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 21"OT                                                                                                                                                                                                                                        | 420   |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 14"                                           | 450                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 21"MP 90"                                                                                                                                                                                                                                    | 450   |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 17"                                           | 450                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 25"MP 110"                                                                                                                                                                                                                                   | 400   |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| 20"FB                                         | 450                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 28"MP 110"                                                                                                                                                                                                                                   | 300   |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| BKS<br>Black Stretch                          | Factory Setting                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                              |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |
| YD<br>Luminance<br>Delay                      |                                                                                                                                                                                                                                                                                                                                                                     | Use ◀ ▶<br>to adapt the image                                                                                                                                                                                                                |       |      |       |      |     |     |       |     |     |     |           |     |     |     |            |     |       |     |            |     |

\*Perform the G2 and the Focus settings beforehand.

Effectuez au préalable les réglages de G2 et de focus.

Stellen Sie zuvor G2 und "Focus" ein.

Effettuare le regolazioni G2 e del Fuoco innanzitutto.

Efectuar previamente los ajustes de G2 y Foco

\*\* Adjust separate for PAL / SECAM

\* S \* : Video signal received is SECAM.

\* P \* : Video signal received is PAL.

| IF LINES                                                                                                                                               |                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TOP                                                                                                                                                    | ◀ 20 0-0F ▶                                                                                                                                                                                       |
| FFI                                                                                                                                                    | 00 0-01                                                                                                                                                                                           |
| ACL*                                                                                                                                                   | 00 0-01                                                                                                                                                                                           |
| TOP<br>AGC - Take Over                                                                                                                                 |                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>Minimum noise - Minimum de bruit</li> <li>Minimum Rauschen - Rumore minimo</li> <li>Minimo ruido</li> </ul>     |                                                                                                                                                                                                   |
| <p>210.25 MHz<br/>3mV<br/>antenna input<br/>chassis TX807 C / CS<br/>Tuner<br/>BG CH 10<br/>Monitor IF<br/>38.9 MHz</p>                                |                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>Set TOP to 00</li> <li>Adjust TOP for maximum gain of IF signal.</li> <li>Reduce IF level about 8dB.</li> </ul> |                                                                                                                                                                                                   |
| ROM Default Value : AGC : 20                                                                                                                           |                                                                                                                                                                                                   |
| FFI*                                                                                                                                                   | Fast Filter (IF / PLL)                                                                                                                                                                            |
| Fast Filter IF-PLL                                                                                                                                     | <ul style="list-style-type: none"> <li>Filtere rapide (FI / PLL)</li> <li>Schnelles Filter (ZF / PLL)</li> <li>Filtro /rapido (IF / PLL)</li> <li>00 : Europ</li> <li>Factory Setting.</li> </ul> |
| ACL*                                                                                                                                                   | Factory Setting.                                                                                                                                                                                  |
| Automatic Colour limiting                                                                                                                              | ACL=00                                                                                                                                                                                            |
| VIDEO PROCESSOR LINES                                                                                                                                  |                                                                                                                                                                                                   |
| CD0                                                                                                                                                    | 84 0-FF                                                                                                                                                                                           |
| CD1                                                                                                                                                    | 00 0-FF                                                                                                                                                                                           |
| SYN0                                                                                                                                                   | ◀ 30 0-FF ▶                                                                                                                                                                                       |
| SYN1                                                                                                                                                   | 08 0-FF                                                                                                                                                                                           |
| DEF                                                                                                                                                    | 00 0-0F                                                                                                                                                                                           |
| V10                                                                                                                                                    | 00 0-0F                                                                                                                                                                                           |
| V11                                                                                                                                                    | 00 0-0F                                                                                                                                                                                           |
| SOUND                                                                                                                                                  | 00 0-FF                                                                                                                                                                                           |
| CONT0                                                                                                                                                  | 48 0-FF                                                                                                                                                                                           |
| CONT1                                                                                                                                                  | 00 0-0F                                                                                                                                                                                           |
| SOUND1                                                                                                                                                 | 00 0-FF                                                                                                                                                                                           |
| FEAT0                                                                                                                                                  | 00 0-01                                                                                                                                                                                           |
| FEAT1                                                                                                                                                  | 00 0-01                                                                                                                                                                                           |
| LOCK                                                                                                                                                   | 00 0-01                                                                                                                                                                                           |
| LIMIT                                                                                                                                                  | 00 0-01                                                                                                                                                                                           |
| CD0                                                                                                                                                    | <ul style="list-style-type: none"> <li>Colour Decoder 0 = 84</li> <li>Colour Decoder</li> <li>mono sets: CD1 = 80H</li> <li>stereo sets: CD1 = 00H</li> <li>Factory Setting.</li> </ul>           |
| CD1                                                                                                                                                    |                                                                                                                                                                                                   |
| SYN0                                                                                                                                                   | <ul style="list-style-type: none"> <li>Synchronisation 0 = 30</li> <li>Synchronisation 1 = 1C</li> <li>Factory Setting.</li> </ul>                                                                |
| SYN1                                                                                                                                                   |                                                                                                                                                                                                   |
| DEF                                                                                                                                                    | <ul style="list-style-type: none"> <li>Deflection = 00</li> <li>Factory Setting.</li> </ul>                                                                                                       |
| V10                                                                                                                                                    | <ul style="list-style-type: none"> <li>Vision IF 0 = 40</li> <li>Vision IF 1 = 00</li> <li>Factory Setting.</li> </ul>                                                                            |
| V11                                                                                                                                                    |                                                                                                                                                                                                   |
| SOUND                                                                                                                                                  | <ul style="list-style-type: none"> <li>Sound = 00</li> <li>Factory Setting.</li> </ul>                                                                                                            |
| CONT0                                                                                                                                                  | <ul style="list-style-type: none"> <li>Control 0 = 40</li> <li>Control 1 = 00</li> <li>Factory Setting.</li> </ul>                                                                                |
| CONT1                                                                                                                                                  |                                                                                                                                                                                                   |
| FEAT0                                                                                                                                                  | <ul style="list-style-type: none"> <li>Features 0 = 00</li> <li>Factory Setting.</li> </ul>                                                                                                       |

\* According to software version.

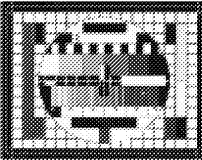
| OSD      | DESCRIPTION                    | DEFAULT VALUE ( HEX )   |
|----------|--------------------------------|-------------------------|
| ID       | Software                       |                         |
| INIT     | Initialise TV set              |                         |
| STANDARD | RF Norm Group Selection        | 0 (EU)                  |
| KEY      | Key Lock                       | OFF                     |
| OSDCONTR | OSD Contrast                   | 03                      |
| WBF-R    | Timing of wide blanking        | 88                      |
| SOC1-0   | Peak White Limiting            | 08                      |
| OIFS     | Offset IF demodulator          | 20                      |
| FR       | France                         | 00                      |
| HS       | Horizontal Shift               | 20                      |
| VS       | Vertical Slope                 | 1A                      |
| VA       | Vertical Amplitude             | 20                      |
| SC       | S-Correction                   | 10                      |
| VSH      | Vertical Shift                 | 20                      |
| CL       | Cathode Level                  | 00                      |
| BLORS    | Black Level Offset Red SECAM   | 8                       |
| BLORP    | Black Level Offset Red PAL     | 8                       |
| BLOGS    | Black Level Offset Green SECAM | 8                       |
| BLOGP    | Black Level Offset Green SECAM | 8                       |
| WPRS     | White Point Red SECAM          | 20                      |
| WPRP     | White Point Red PAL            | 20                      |
| WPGS     | White Point Green SECAM        | 20                      |
| WPGP     | White Point Green PAL          | 20                      |
| WPBS     | White Point Blue SECAM         | 20                      |
| WPBP     | White Point Blue PAL           | 20                      |
| PWS      | Peak White SECAM               | 20                      |
| PWP      | Peak White PAL                 | 20                      |
| BKS      | Black Stretch                  | 01                      |
| YD       | Luminance Delay                | 08                      |
| TOP      | AGC Take-Over                  | 20                      |
| FFI      | Fast Filter IF-PLL             | 00                      |
| ACL      | Automatic Colour limiting      | 00                      |
| CD0      | Colour Decoder 0               | 84                      |
| CD1      | Colour Decoder 1               | Mono : 80<br>Stereo: 00 |
| SYN0     | Synchronisation 0              | 30                      |
| SYN1     | Synchronisation 1              | 1C                      |
| DEF      | Deflection                     | 00                      |
| V10      | Vision IF 0                    | 40                      |
| V11      | Vision IF 1                    | 00                      |
| SOUND    | Sound                          | 00                      |
| CONT0    | Control 0                      | 40                      |
| CONT1    | Control 1                      | 00                      |
| FEAT0    | Features 0                     | 00                      |



GEOMETRY MODE ALIGNMENT

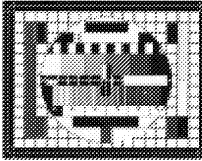
90° tube

Signal : 50 Hz - 4/3 test pattern

|                                |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4 / 3<br/>standard mode</p> |  | <p>Overscan V=107% , H=107%</p> <p>1 - Adjust Horizontal Centering (HS)</p> <div></div> <p>2 - Adjust Vertical centering (VSH) and Vertical amplitude 107% (VA)<br/>3 - Adjust Vertical Slope (VS) and linearity (SC)</p> <div></div> <p>4-If necessary repeat VSH, VA alignment to 7% overscan.</p> |
|--------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

110° tube

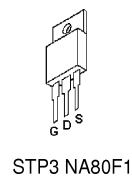
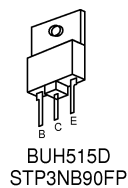
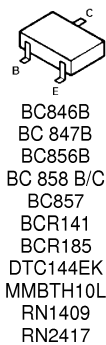
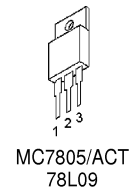
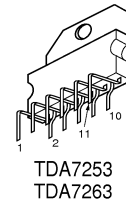
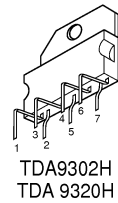
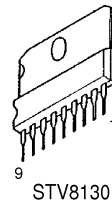
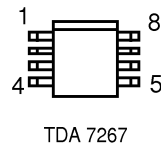
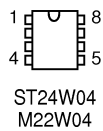
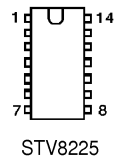
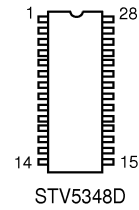
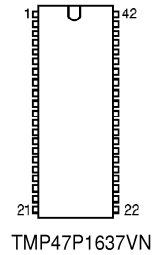
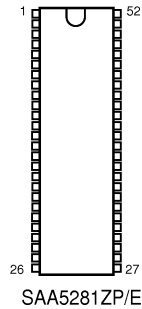
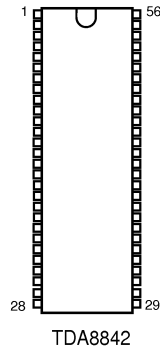
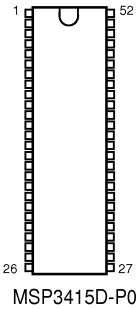
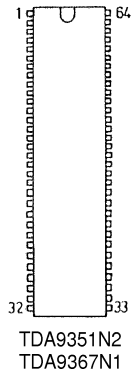
Signal : 50 Hz - 4/3 test pattern

|                                |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4 / 3<br/>standard mode</p> |  | <p>Overscan V=107% , H=107%</p> <div><p>EAST-WEST MODULE</p><p>1 - PL140 : Turn fully counterclockwise.</p></div> <div><p>MAIN BOARD</p><p>2 - Adjust Horizontal Centering (HS)</p><div></div><p>3 - Adjust Vertical centering (VSH) and Vertical amplitude 107% (VA)<br/>4 - Adjust Vertical Slope (VS) and linearity (SC)</p><div></div><p>5 - If necessary repeat VSH, VA alignment to 7% overscan.</p></div> <div><p>EAST-WEST MODULE</p><p>6 - PL140 : Adjust Horizontal amplitude with PL140 for optimum overscan</p><div></div><p>7 - PL141 : Adjust Pincushion.</p><div></div><p>8 - PL143 : Adjust Trapezium</p><div></div><p>9 -If necessary repeat Horizontal amplitude, pincushion correction and trapezium alignment</p></div> |
|--------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# LIST OF ABBREVIATIONS - LISTE DES ABREVIATIONS - ABKÜRZUNGEN LISTA DELLE ABBREVIAZIONI - LISTA DE ABREVIACIONES

|                |                                                                                                                                          |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| ● BCL          | BEAM CURRENT LIMITING INFORMATION                                                                                                        |
| ● BLACK_I      | BLACK CURRENT INPUT                                                                                                                      |
| ● B / B'       | BLUE SIGNAL TO VIDEO AMPLIFIER                                                                                                           |
| ● CVBS         | COMPOSITE VIDEO BASE BAND SIGNAL                                                                                                         |
| ● DEGAUSS      | DEGAUSS SIGNAL                                                                                                                           |
| ● DEG-COIL     | DEGAUSS COIL                                                                                                                             |
| ● FAULT        | SIGNAL TO DETECT FAULT CONDITION                                                                                                         |
| ● FB           | FAST BLANKING                                                                                                                            |
| ● G / G'       | GREEN SIGNAL TO VIDEO AMPLIFIER                                                                                                          |
| ● H / HDRV     | DRIVE SIGNAL FOR HORIZONTAL DEFLECTION                                                                                                   |
| ● HTR / HEATER | HEATER VOLTAGE                                                                                                                           |
| ● I_CUT        | CUT OFF CURRENT                                                                                                                          |
| ● IR           | DATA FROM INFRARED RECEIVER                                                                                                              |
| ● MUTE         | MUTE AUDIO AMPLIFIER                                                                                                                     |
| ● OPTO         | REGULATION SIGNAL GOING TO OPTO COUPLER ON DC-DC POWER SUPPLY MODULE.                                                                    |
| ● PO           | POWER ON. SIGNAL FROM MICRO. TO POWER SUPPLY. SWITCHES THE POWER SUPPLY FROM STANDBY TO ON.                                              |
| ● R / R'       | RED SIGNAL TO VIDEO AMPLIFIER                                                                                                            |
| ● SCL          | SERIAL CLOCK                                                                                                                             |
| ● SDA          | SERIAL DATA                                                                                                                              |
| ● SLOW_SW      | SLOW SWITCH FROM SCART                                                                                                                   |
| ● SOUND_SW     | IF SELECTION CONTROL INPUT                                                                                                               |
| ● UA           | POSITIVE AUDIO VOLTAGE                                                                                                                   |
| ● -UA          | AUDIO VOLTAGE GROUND                                                                                                                     |
| ● USTBY        | STANDBY VOLTAGE: 11.9V                                                                                                                   |
| ● +UB / USYS   | SYSTEM VOLTAGE                                                                                                                           |
| ● USYS_MOD     | SIGNAL TO MODULATE USYS                                                                                                                  |
| ● UVIDEO       | VIDEO VOLTAGE FOR THE CRT BOARD                                                                                                          |
| ● V_DRIVE      | DRIVE SIGNAL FOR VERTICAL DEFLECTION                                                                                                     |
| ● +VSUPPLY     | 12.9V. POSITIVE SUPPLY VOLTAGE FOR VERTICAL POWER AMPLIFIER                                                                              |
| ● -VSUPPLY     | 10.5 TO 12.5V (DEPENDENT ON TUBE TYPE). NEGATIVE SUPPLY VOLTAGE FOR VERTICAL POWER AMPLIFIER 12.9V.                                      |
| ● VT           | TUNING VOLTAGE                                                                                                                           |
| ● +5VON        | SUPPLY VOLTAGE FOR THE MICROPROCESSOR AND AUDIO PART. ONLY PRESENT IN ON MODE.                                                           |
| ● +8V          | SUPPLY VOLTAGE FOR THE MICROPROCESSOR, AUDIO PART AND FOR THE DRIVER PULL-UP RESISTOR                                                    |
| ● +3VUP        | PRESENT IN STANDBY MODE. POWER SUPPLY VOLTAGE FOR THE MICROPROCESSOR. POWER SUPPLY INTERNAL USED AS REFERENCE VOLTAGE FOR THE REGULATION |
| ● +33V         | TUNER VOLTAGE                                                                                                                            |

# INTEGRATED CIRCUITS AND TRANSISTORS OUTLINE - CIRCUITS INTEGRES ET TRANSISTORS INTEGRIERTE SCHALTUNGEN UND TRANSISTOREN - CIRCUITI INTEGRATI TRANSISTOR CIRCUITOS INTEGRADOS Y TRANSISTORES



|                 |     |                                             | CONSTANTLY                                |                                               | INTERMITTENTLY                |                                                 | AFTER A WHILE |                                              | IN A HOT ENVIRONMENT |       | IN A COLD ENVIRONMENT |  | WHEN SWITCHING |  | UNDER VIBRATION |  | IN A DAMP/WET/ RAINY/SNOWY ENVIRONMENT |  | IN A DRY ENVIRONMENT |  | AFTER BEING DROPPED/ TRANSPORT DAMAGE |  | AFTER LIGHTNING STRIKE |  | ONLY CERTAIN STATIONS/ SOFTWARE/ MODE/ CHANNELS/ FREQUENCY BAND |  | ONLY ON CERTAIN STANDARDS |  | ONLY ON ONE CHANNEL |  | ONLY WITH CERTAIN INPUT(S) |  | ONLY ON CERTAIN OUTPUT(S) |  | IN STANDBY/OFF MODE |  | AT EDIT POINT |  | WHEN INTERCONNECTED |  | LIQUID CONTAMINATION |  | FOR A SHORT WHILE AFTER SWITCH-ON |  | AFTER MAKING A COPY |  | UNDER STRESSED CONDITIONS / HIGH LOAD |  | AT SWITCH-OFF |  |
|-----------------|-----|---------------------------------------------|-------------------------------------------|-----------------------------------------------|-------------------------------|-------------------------------------------------|---------------|----------------------------------------------|----------------------|-------|-----------------------|--|----------------|--|-----------------|--|----------------------------------------|--|----------------------|--|---------------------------------------|--|------------------------|--|-----------------------------------------------------------------|--|---------------------------|--|---------------------|--|----------------------------|--|---------------------------|--|---------------------|--|---------------|--|---------------------|--|----------------------|--|-----------------------------------|--|---------------------|--|---------------------------------------|--|---------------|--|
|                 |     |                                             | 1                                         | NO ACTION                                     | 2                             | LEVEL                                           | 3             | QUALITY                                      | 4                    | NOISE |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| GENERAL         | 110 | POWER PROBLEM OR NOT OPERATING              | 120                                       | CHARGING PROBLEM                              | 130                           | DISPLAY FUNCTION PROBLEM                        | 140           | ABNORMAL NOISE                               |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 111 | NO POWER                                    | 121                                       | NO BATTERY CHARGING                           | 131                           | FAULTY DISPLAY                                  | 141           | CRT DISCHARGING NOISE                        |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 112 | NO POWER WHEN USING AC-ADAPTER              | 122                                       | INCOMPLETE BATTERY CHARGE                     | 132                           | FAULTY LAMP/LED OPERATION                       | 142           | EHT DISCHARGING NOISE                        |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 113 | NO POWER WHEN USING DRY BATTERIES           | 123                                       | CHARGING TIME TOO LONG                        | 133                           | FAULTY LEVEL METER OPERATION                    | 143           | NOISY CABINET/CRACKING TRAYS                 |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 114 | NO POWER WHEN USING RECHARGEABLE BATTERIES  | 12X                                       | OTHER 'CHARGING' PROBLEM                      | 134                           | FAULTY ON-SCREEN DISPLAY OPERATION              | 144           | NOISY TRANSFORMER/HUMMING                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 115 | NO POWER FROM SOLAR CELL                    |                                           |                                               | 135                           | ELECTRONIC TUNING DISPLAY FAULT                 | 145           | NOISY COMPONENT(S)                           |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 116 | NO POWER WHEN USING A CAR BATTERY           |                                           |                                               | 136                           | MECHANICAL TUNING DISPLAY FAULT                 | 146           | RATTLE                                       |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 117 | SHORT OPERATION TIME/SHORT BATTERY LIFE     |                                           |                                               | 137                           | FAULTY TIME CODE DISPLAY                        | 147           | CLICKING                                     |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 118 | POWER-OFF FUNCTION NOT WORKING              |                                           |                                               | 138                           | FAULTY ALARM/ERROR DISPLAY                      | 148           | CLOCK NOISE                                  |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 119 | NO SWITCH-ON FROM STANDBY                   |                                           |                                               | 139                           | DISPLAY DIM/TOO DARK                            | 149           | CRACKING                                     |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| COMMUNICATION   | 210 | NO RECEPTION OR CONNECTION                  | 220                                       | POOR RECEPTION OR CONNECTION                  | 230                           | TRANSMISSION/CONNECTION PROBLEM                 | 240           | NOISY RECEPTION/TRANSMISSION                 |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 211 | NO AM RECEPTION                             | 221                                       | POOR AM RECEPTION                             | 231                           | NO TRANSMISSION/CONNECTION                      | 241           | LINE NOISE                                   |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 212 | NO FM RECEPTION                             | 222                                       | POOR FM RECEPTION                             | 232                           | POOR TRANSMISSION/CONNECTION                    | 242           | OSCILLATION                                  |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 213 | NO SW RECEPTION                             | 223                                       | POOR SW RECEPTION                             | 233                           | TRANSMISSION LEVEL TOO HIGH                     | 243           | INTERSTATION INTERFERENCE                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 214 | NO VHF RECEPTION                            | 224                                       | POOR VHF RECEPTION                            | 234                           | NO TRANSMISSION BETWEEN BASE UNIT AND HANDSET   | 24X           | OTHER 'NOISY RECEPTION/TRANSMISSION' PROBLEM |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 215 | NO UHF RECEPTION                            | 225                                       | POOR UHF RECEPTION                            |                               |                                                 |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 216 | NO BS RECEPTION                             | 226                                       | POOR BS RECEPTION                             | 235                           | POOR TRANSMISSION BETWEEN BASE UNIT AND HANDSET |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 217 | NO CS RECEPTION                             | 227                                       | POOR CS RECEPTION                             |                               |                                                 |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 218 | NO HDTV RECEPTION                           | 228                                       | POOR HDTV RECEPTION                           | 236                           | NO IR TRANSMISSION                              |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 219 | NO GPS/QPS RECEPTION                        | 229                                       | POOR GPS/QPS RECEPTION                        | 237                           | ONE-SIDED CONNECTION                            |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| PICTURE         | 310 | NO PICTURE                                  | 320                                       | PICTURE LEVEL PROBLEM                         | 330                           | PICTURE QUALITY PROBLEM                         | 340           | PICTURE NOISE                                |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 311 | NO PICTURE IN E TO E MODE                   | 321                                       | PICTURE TOO DARK                              | 331                           | POOR PICTURE RESOLUTION                         | 341           | SNOWY PICTURE                                |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 312 | NO PICTURE IN PLAYBACK MODE                 | 322                                       | PICTURE TOO BRIGHT                            | 332                           | POOR FOCUS                                      | 342           | DOT NOISE OR DROPOUT ON PICTURE              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 313 | NO PICTURE IN VIEWFINDER                    | 323                                       | CONTRAST TOO LOW                              | 333                           | RINGING ON PICTURE                              | 343           | NOISE BARS ON PICTURE                        |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 314 | NO PICTURE, ONLY RASTER                     | 324                                       | CONTRAST TOO HIGH                             | 334                           | EXCESSIVE SMEAR/LAG                             | 344           | BLANKING LINES ON PICTURE                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 315 | NO RASTER, BLACK PICTURE                    | 325                                       | SATURATED WHITE OR BLACK LEVEL                | 335                           | POOR LINEARITY OR GEOMETRY                      | 345           | BEATING ON PICTURE                           |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 316 | ONLY HORIZONTAL LINE                        | 326                                       | SHADING ON PICTURE                            | 336                           | PICTURE SIZE INCORRECT                          | 346           | GHOSTING ON PICTURE                          |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 317 | ONLY VERTICAL LINE                          | 327                                       | ONLY PARTIAL PICTURE                          | 337                           | INCORRECT CENTRING OF PICTURE                   | 347           | VCR HEAD SWITCHING NOISE ON PICTURE          |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 318 | NO PICTURE IN LCD                           | 32X                                       | OTHER 'PICTURE LEVEL' PROBLEM                 | 338                           | PICTURE SLANTED                                 | 348           | OVERMODULATION NOISE                         |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 319 | NO 2nd (OR HIGHER) MONITOR DISPLAY          |                                           |                                               | 339                           | V-SIZE INCORRECT                                | 349           | MOIRE                                        |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| COLOUR          | 410 | NO COLOUR                                   | 420                                       | COLOUR LEVEL PROBLEM                          | 430                           | POOR COLOUR QUALITY                             | 440           | NOISY COLOUR                                 |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 411 | NO COLOUR IN E TO E MODE                    | 421                                       | WEAK COLOUR                                   | 431                           | SOME OR ALL COLOURS MISSING                     | 441           | COLOUR NOISE ON A BLACK & WHITE PICTURE      |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 412 | NO COLOUR IN PLAYBACK MODE                  | 422                                       | EXCESSIVE COLOUR                              | 432                           | POOR WHITE BALANCE                              | 442           | COLOUR STREAKING                             |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 413 | NO COLOUR IN VIEWFINDER                     | 42X                                       | OTHER 'COLOUR LEVEL' PROBLEM                  | 433                           | HUE PROBLEM                                     | 443           | COLOUR BARS ON PICTURE                       |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 414 | NO COLOUR IN PART OF PICTURE                |                                           |                                               | 434                           | PURITY ERROR                                    | 44X           | OTHER 'COLOUR NOISE' PROBLEM                 |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 41X | OTHER 'NO COLOUR' PROBLEM                   |                                           |                                               | 435                           | LANDING ERROR/WHITE UNIFORMITY                  |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 |     |                                             |                                           |                                               | 436                           | CONVERGENCE ERROR                               |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 |     |                                             |                                           |                                               | 437                           | REGISTRATION ERROR                              |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 |     |                                             |                                           |                                               | 438                           | PITCH MOIRE/RAINBOW PATTERN                     |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 |     |                                             |                                           |                                               | 439                           | COLOUR SHIFT                                    |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| AUDIO           | 510 | NO AUDIO                                    | 520                                       | AUDIO LEVEL PROBLEM                           | 530                           | AUDIO QUALITY                                   | 540           | NOISY AUDIO                                  |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 511 | NO SOUND IN E TO E MODE                     | 521                                       | LOW AUDIO LEVEL                               | 531                           | POOR FREQUENCY RESPONSE                         | 541           | HUM                                          |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 512 | NO PLAYBACK OF OUTGOING MESSAGE(S)          | 522                                       | EXCESSIVE AUDIO LEVEL                         | 532                           | DISTORTED AUDIO                                 | 542           | HISS                                         |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 513 | NO PLAYBACK OF INCOMING MESSAGE(S)          | 523                                       | BALANCE PROBLEM                               | 533                           | NO OR POOR TREBLE                               | 543           | CROSSTALK                                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 514 | NO AUDIO PLAYBACK                           | 524                                       | FADER PROBLEM                                 | 534                           | NO OR POOR BASS                                 | 544           | STATIC, POP OR CLICK NOISE                   |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 515 | NO SOUND FROM HANDSET                       | 525                                       | AUDIO LEVEL REMAINING/NO MUTING               | 535                           | EARPHONE/HEADPHONE AUDIO POOR                   | 545           | BUZZ                                         |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 516 | NO SOUND FROM SPEAKER                       | 52X                                       | OTHER 'AUDIO LEVEL' PROBLEM                   | 53X                           | OTHER 'AUDIO QUALITY' PROBLEM                   | 546           | SCRATCHING NOISE                             |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 517 | NO SOUND FROM EARPHONE/HEADPHONE            |                                           |                                               |                               |                                                 | 547           | IGNITION NOISE                               |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 518 | NO MICROPHONE SOUND                         |                                           |                                               |                               |                                                 | 548           | WHISTLING/MULTIPATH NOISE                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 519 | NO SOUND FROM DIGITAL OUTPUT                |                                           |                                               |                               |                                                 | 549           | DATA/DIGITAL NOISE                           |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| MECHANISM       | 610 | NO MECHANICAL OPERATION                     | 620                                       | IRREGULAR MECHANICAL OPERATION                | 630                           | SPEED PROBLEM                                   | 640           | MECHANICAL NOISE                             |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 611 | NO ROTATION OF MOTOR/DISC                   | 621                                       | IRREGULAR ROTATION                            | 631                           | SPEED TOO FAST                                  | 641           | ROTATION NOISE/DRUM NOISE                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 612 | NO FORWARD OPERATION                        | 622                                       | IRREGULAR FORWARD MODE                        | 632                           | SPEED TOO SLOW                                  | 642           | MOTOR NOISE                                  |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 613 | NO REVERSE OPERATION                        | 623                                       | IRREGULAR REVERSE OPERATION                   | 633                           | SPEED UNADJUSTABLE                              | 643           | WIND/AIR NOISE                               |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 614 | NO FAST FORWARD OR REWIND FUNCTION          | 624                                       | IRREGULAR FAST FORWARD OR REWIND FUNCTION     | 63X                           | OTHER 'SPEED' PROBLEM                           | 644           | SQUEALING                                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 615 | NO LOADING                                  | 625                                       | IRREGULAR LOADING OF MEDIA                    |                               |                                                 | 645           | FAN NOISE                                    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 616 | NO UNLOADING OR EJECTING                    | 626                                       | IRREGULAR UNLOADING OR EJECTING               |                               |                                                 | 646           | DISC SCRAPING                                |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 617 | NO AUTO SHUT-OFF OPERATION                  | 627                                       | IRREGULAR AUTO SHUT-OFF OPERATION             |                               |                                                 | 647           | NOISY TAPE LOADING                           |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 618 | TONEARM DOES NOT MOVE                       | 628                                       | IRREGULAR TONEARM MOVEMENT                    |                               |                                                 | 648           | GEAR NOISE                                   |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 619 | DISC NOT BEING EJECTED                      | 629                                       | IRREGULAR EJECTION OF DISC                    |                               |                                                 | 649           | CONTROL OR SWITCH NOISY                      |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| DATA PROCESSING | 710 | NO DATA PROCESSING OPERATION                | 720                                       | FAULTY DATA PROCESSING OPERATION              | 730                           | DATA DISPLAY PROBLEM                            | 740           | KEYBOARD/POINTING DEVICE                     |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 711 | NO INITIAL SCREEN                           | 721                                       | INCORRECT DATA                                | 731                           | INCORRECT CHARACTER DISPLAY                     | 741           | MOUSE/TRACKBALL/TRACKPAD NOT WORKING         |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 712 | SYSTEM DOES NOT RESET                       | 722                                       | SYSTEM RESET WHILE BEING USED                 | 732                           | MISSING DISPLAY CHARACTERS                      | 742           | KEYBOARD LOCKS UP                            |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 713 | SYSTEM DOES NOT BOOT UP                     | 723                                       | SYSTEM LOCKS OUT/CRASHES/HANGS                | 733                           | FAULTY GRAPHIC DISPLAY                          | 743           | POINTING DEVICE LOCKS UP                     |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 714 | NO OPERATION FROM PLUG-IN MODULE/PERIPHERAL | 724                                       | FAULTY OPERATION OF PLUG-IN MODULE            | 734                           | FAULTY SWITCHING BETWEEN GRAPHIC/CHARACTER MODE | 744           | STICKY KEY(S)                                |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 715 | NO KEYBOARD OPERATION                       | 725                                       | FAULTY KEYBOARD OPERATION                     | 735                           | FAULTY PROMPT/CURSOR OPERATION                  | 745           | INOPERATIVE KEY(S)                           |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 716 | NO OPERATION FROM OTHER INPUT/OUTPUT DEVICE | 726                                       | FAULTY OPERATION OF OTHER INPUT/OUTPUT DEVICE | 736                           | DATA DISPLAY COLOUR INCORRECT                   | 746           | POINTING DEVICE NOT TRACKING PROPERLY        |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 717 | NO DATA STORAGE OPERATION                   | 727                                       | FAULTY DATA STORAGE OPERATION                 | 737                           | NO PAGING OR SCROLL MODE                        | 747           | POINTING DEVICE JITTERY                      |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 718 | NO DATA COMMUNICATION                       | 728                                       | FAULTY DATA COMMUNICATION                     | 73X                           | OTHER 'DATA DISPLAY' PROBLEM                    | 748           | LEFT- OR RIGHT CLICK BUTTON INOPERATIONAL    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 719 | ERROR MESSAGE DISPLAY                       | 729                                       | MEMORY ERROR                                  |                               |                                                 | 749           | TRACKPAD SURFACE DAMAGED                     |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
| PRINT/COPY/SCAN | 810 | NO PRINT/COPY/SCAN OPERATION                | 820                                       | ERRONEOUS PRINT/COPY/SCAN OPERATION           | 830                           | POOR PRINT QUALITY                              | 840           | NOISY PRINTING                               |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 811 | NOT PRINTING                                | 821                                       | PRINT IMAGE REVERSED (NEGATIVE/POSITIVE)      | 831                           | INCORRECT PRINTING POSITION                     | 841           | PRINTING NOISE LINES                         |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 812 | NO COMMUNICATION WITH PRINTER               | 822                                       | IRREGULAR PAPER FEED                          | 832                           | LOW PRINT CONTRAST                              | 842           | DIRTY PRINTING                               |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 813 | PAPER NOT LOADING                           | 823                                       | ERRONEOUS PRINT MODE SWITCHING                | 833                           | EXCESSIVE PRINT CONTRAST                        | 843           | UNPLEASANT SMELL (OZONE)                     |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 814 | NO PAPER FEED                               | 824                                       | COPY TOO DARK                                 | 834                           | BLURRED PRINT IMAGE                             | 844           | BLACK LINES/STRIPES IN FEED DIRECTION        |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 815 | NO IMAGE FIXATION                           | 825                                       | COPY TOO BRIGHT                               | 835                           | PRINT IMAGE NOT SHARP                           | 845           | WHITE LINES/STRIPES IN FEED DIRECTION        |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 816 | NO DOCUMENT FEEDING                         | 826                                       | BLACK COPY                                    | 836                           | DOTS MISSING IN PRINT IMAGE                     | 846           | BLACK LINES/STRIPES ACROSS FEED DIRECTION    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 817 | SCANNER NOT WORKING                         | 827                                       | WHITE COPY                                    | 837                           | COLOUR STREAKING                                | 847           | WHITE LINES/STRIPES ACROSS FEED DIRECTION    |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 818 | POOR COLOUR LEVELS                          | 828                                       | POOR COLOUR LEVELS                            | 838                           | NO COLOUR IN PART OF PICTURE                    | 84X           | OTHER 'NOISY PRINTING' PROBLEM               |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 | 819 | IRREGULAR DOCUMENT FEED                     | 829                                       | IRREGULAR DOCUMENT FEED                       | 839                           | PRINT IMAGE/COPY INCOMPLETE                     |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 |     | 82A                                         | FAULTY CORRECTION FUNCTION                | 83A                                           | FAULTY CALIBRATION            |                                                 |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 |     | 82B                                         | POOR SCANNING QUALITY                     | 83X                                           | OTHER 'PRINT QUALITY' PROBLEM |                                                 |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |
|                 |     | 82X                                         | OTHER 'PRINT/COPY/SCAN OPERATION' PROBLEM |                                               |                               |                                                 |               |                                              |                      |       |                       |  |                |  |                 |  |                                        |  |                      |  |                                       |  |                        |  |                                                                 |  |                           |  |                     |  |                            |  |                           |  |                     |  |               |  |                     |  |                      |  |                                   |  |                     |  |                                       |  |               |  |

BROWN GOODS

REV 03 - 2000/02

# SYMPTOM CODE TABLE



| 5          | UNSTABLE                                                                        | 6          | RECORDING & PHYSICAL PROBLEMS                                | 7          | SPECIAL FUNCTIONS                                   | 8          | OTHER CONDITIONS                                 |
|------------|---------------------------------------------------------------------------------|------------|--------------------------------------------------------------|------------|-----------------------------------------------------|------------|--------------------------------------------------|
| <b>150</b> | <b>REMOTE CONTROL PROBLEM</b>                                                   | <b>160</b> | <b>PHYSICAL DAMAGE</b>                                       | <b>170</b> | <b>GENERAL FUNCTION PROBLEM</b>                     | <b>180</b> | <b>SPECIAL REQUIREMENTS</b>                      |
| 151        | NO REMOTE CONTROL OPERATION                                                     | 161        | DAMAGED/DEFORMED CABINET/PANEL                               | 171        | FAULTY CLOCK FUNCTION                               | 181        | TEST AND CHECK                                   |
| 152        | INCORRECT REMOTE CONTROL OPERATION                                              | 162        | DAMAGED HANDLE/CLIP                                          | 172        | FAULTY SLEEP FUNCTION                               | 182        | GENERAL OVERHAUL                                 |
| 153        | REMOTE CONTROL PROGRAMMING/<br>LEARNING MODE PROBLEM                            | 163        | DAMAGED CONTROL KNOB(S)/BUTTON(S)/KEYPAD                     | 173        | FAULTY TIMER PROGRAMMING                            | 183        | SYSTEM/FREQUENCY CONVERSION                      |
| 154        | POOR REMOTE CONTROL SENSITIVITY                                                 | 164        | DAMAGED DOOR/COVER                                           | 174        | FAULTY TIMER OPERATION                              | 184        | INITIAL SETUP/INSTALLATION REQUES                |
| 15X        | OTHER 'REMOTE CONTROL' PROBLEM                                                  | 165        | DAMAGED SEAL                                                 | 175        | PROGRAMMING/USER ADJUSTMENT PROBLEM                 | 185        | MODIFICATION/CIRCUIT/INSTALLATION                |
|            |                                                                                 | 166        | DAMAGED PLUG/SOCKET/TERMINAL/CONNECTOR                       | 176        | FAULTY RECORD MUTE OPERATION                        |            | CHANGE                                           |
|            |                                                                                 | 167        | DAMAGED LENS                                                 | 177        | FAULTY PROGRAMMED PLAYBACK OPERATION                | 186        | WRONG PRODUCT IN CARTON                          |
|            |                                                                                 | 168        | DAMAGED CARTRIDGE OR STYLUS                                  | 178        | FAULTY MEMORY FUNCTION                              | 187        | ACCESSORY MISSING                                |
|            |                                                                                 | 169        | DAMAGED ANTENNA                                              | 179        | FAULTY INPUT SWITCHING                              | 188        | UNABLE TO CONNECT PARTS-/TO                      |
|            |                                                                                 | 16A        | DAMAGED CRT OR VIEWFINDER/LCD DISPLAY                        | 17A        | FAULTY OUTPUT SWITCHING                             |            | ASSEMBLE                                         |
|            |                                                                                 | 16B        | MISSING COMPONENT(S) OR ORNAMENTAL PARTS                     | 17B        | ELECTRIC SHOCK/STATIC DISCHARGE                     | 189        | WRONG COLOUR                                     |
|            |                                                                                 | 16C        | PRINTED MARKINGS ERASED/PEELED OFF                           | 17C        | FAULTY SEARCH FUNCTION                              | 18B        | BATTERY MOUNTING PROBLEM                         |
|            |                                                                                 | 16D        | SET BURNING/EMITS SMOKE                                      |            | (INDEX/VIEW/TITLE/CHAPTER/TRACK...)                 | 18X        | OTHER SPECIAL REQUIREMENTS                       |
|            |                                                                                 | 16E        | EXTERNAL SURFACE DAMAGE (BUBBLING/PEELING/RUSTING/SCRATCHED) | 17D        | WRONG LANGUAGE/CHARACTER SET                        | 18Z        | SYMPTOM NOT AVAILABLE                            |
|            |                                                                                 | 16F        | SMELL                                                        | 17E        | ERROR CODE APPEARS IN DISPLAY                       |            |                                                  |
|            |                                                                                 | 16G        | WEAK/DAMAGED STAND                                           | 17F        | SWITCH NOT OPERATING                                |            |                                                  |
|            |                                                                                 | 16H        | DAMAGED SPEAKER                                              | 17G        | PEDAL NOT OPERATING                                 |            |                                                  |
|            |                                                                                 | 16J        | SET GETS VERY HOT / PARTS MELTING                            | 17H        | FAULTY STANDBY MODE                                 |            |                                                  |
|            |                                                                                 | 16K        | FOREIGN SUBSTANCE ON/IN UNIT                                 | 17J        | FAULTY HIBERNATION MODE                             |            |                                                  |
|            |                                                                                 | 16L        | BURNING MARKS                                                | 17K        | NO AUDIBLE WARNING SIGNAL                           |            |                                                  |
|            |                                                                                 | 16M        | INTERNAL SURFACE DAMAGE (BUBBLING/PEELING/RUSTING/SCRATCHED) | 17L        | FAULTY OPERATION OF PARENTAL LOCK/KEYLOCK FUNCTION  |            |                                                  |
|            |                                                                                 | 16N        | DAMAGED POWER CABLE                                          | 17M        | FAULTY MODE SWITCHING                               |            |                                                  |
|            |                                                                                 | 16P        | DAMAGED ACCESSORY                                            | 17N        | MENU FUNCTION PROBLEM                               |            |                                                  |
|            |                                                                                 | 16R        | DISCOLOURATION                                               | 17X        | OTHER 'GENERAL FUNCTION' PROBLEM                    |            |                                                  |
|            |                                                                                 | 16X        | OTHER PHYSICAL DAMAGE                                        |            |                                                     |            |                                                  |
| <b>250</b> | <b>UNSTABLE RECEPTION/TRANSMISSION</b>                                          | <b>260</b> | <b>TUNING PROBLEM</b>                                        | <b>270</b> | <b>SPECIAL COMMUNICATION PROBLEM</b>                | <b>280</b> | <b>SPECIAL RECEPTION PROBLEM</b>                 |
| 251        | TUNING DRIFT                                                                    | 261        | MANUAL TUNING PROBLEM                                        | 271        | FAULTY DIALLING                                     | 281        | FAULTY STEREO RECEPTION                          |
| 252        | FADING                                                                          | 262        | AUTOMATIC TUNING PROBLEM                                     | 272        | FAULTY CHANNEL SELECTION                            | 282        | FAULTY MAIN CHANNEL (A) FUNCTION                 |
| 253        | INTERMITTENT LINE/LINE BREAKING OFF                                             | 263        | INCORRECT TUNING                                             | 273        | FAULTY AUTO-ANSWER OPERATION                        | 283        | FAULTY SUB-CHANNEL (B) FUNCTION                  |
| 254        | NO OR UNSTABLE CONNECTION COMBINED<br>WITH 'WEAK SIGNAL STRENGTH'<br>INDICATION | 264        | TUNING MEMORY PROBLEM                                        | 274        | FAULTY MESSAGE READ-OUT FUNCTION                    | 284        | FAULTY SSB RECEPTION                             |
| 25X        | OTHER 'UNSTABLE RECEPTION/<br>TRANSMISSION' PROBLEM                             | 26X        | OTHER 'TUNING' PROBLEM                                       | 275        | FAULTY AUTODIAL/REDIAL MEMORY                       | 285        | FAULTY RDS/MP3/PGC/XDS OPERATION                 |
|            |                                                                                 |            |                                                              | 276        | FAULTY SPEECH PROCESSING                            | 286        | FAULTY TELETEXT/CLOSE CAPTION/EP                 |
|            |                                                                                 |            |                                                              | 277        | NO RINGING TONE                                     |            | RECEPTION                                        |
|            |                                                                                 |            |                                                              | 278        | LOUD/WEAK RINGING TONE                              | 287        | FAULTY SATELLITE/RTTY RECEPTION                  |
|            |                                                                                 |            |                                                              | 279        | MODEM STUCK OFF HOOK                                | 288        | FAULTY FAX OPERATION                             |
|            |                                                                                 |            |                                                              | 27A        | FAX DOES NOT WORK PROPERLY                          | 289        | MODEM NOT RECOGNIZED BY SYSTEM                   |
|            |                                                                                 |            |                                                              | 27B        | MODEM CAUSES PROBLEM WITH PHONE                     | 28A        | FAULTY CALL CHARGE DISPLAY                       |
|            |                                                                                 |            |                                                              | 27C        | NO MODEM DIAL TONE                                  | 28B        | FAULTY HANDS-FREE OPERATION                      |
|            |                                                                                 |            |                                                              | 27X        | OTHER 'SPECIAL COMMUNICATION' PROBLEM               | 28C        | SET LOCKED                                       |
|            |                                                                                 |            |                                                              |            |                                                     | 28X        | OTHER 'SPECIAL RECEPTION' PROBLE                 |
| <b>350</b> | <b>UNSTABLE PICTURE</b>                                                         | <b>360</b> | <b>POOR PICTURE RECORDING</b>                                | <b>370</b> | <b>SPECIAL PICTURE FUNCTION PROBLEM</b>             | <b>380</b> | <b>PICTURE DISPLAY/PICKUP PROBLI</b>             |
| 351        | SYNC PROBLEM                                                                    | 361        | NO PICTURE RECORDING                                         | 371        | EDITING PROBLEM                                     | 381        | BURN MARK ON DISPLAY/PICKUP                      |
| 352        | PICTURE PUMPING                                                                 | 362        | NO ERASURE PROTECTION FOR VIDEO                              | 372        | FAULTY FADING/WIPER OPERATION                       | 382        | SCRATCH ON DISPLAY/PICKUP                        |
| 353        | PICTURE JITTER                                                                  | 363        | PREVIOUS VIDEO RECORDING NOT BEING ERASED                    | 373        | FAULTY NEGATIVE/POSITION SWITCHING FUNCTION         | 383        | DUST/DIRT ON DISPLAY/PICKUP                      |
| 354        | PICTURE SHAKING (HORIZONTAL OR<br>VERTICAL)                                     | 364        | UNWANTED ERASURE OF PICTURE                                  | 374        | FAULTY SUPERIMPOSE/TELOP OPERATION                  | 384        | PHOSPHOR/PIXEL MISSING ON                        |
| 355        | FLICKERING PICTURE                                                              | 365        | NO CAMERA RECORDING                                          | 375        | FAULTY PICTURE IN PICTURE/DIGITAL PICTURE OPERATION |            | DISPLAY/PICKUP                                   |
| 356        | FLASHING PICTURE                                                                | 366        | ONLY ONE FIELD PER FRAME BEING RECORDED                      | 376        | FAULTY PICTURE TRANSMISSION                         | 385        | BRIGHT POINT(S) IN PHOSPHOR/PIXE                 |
| 357        | CYCLIC PICTURE MUTING                                                           | 367        | RECORDS ONLY A FEW PICTURES                                  | 377        | FAULTY DIGITAL SHUTTER FUNCTION                     | 386        | LINES ACROSS/DOWN IMAGE                          |
| 358        | HEAD IMPACT ERROR CAUSING UNSTABLE<br>PICTURE                                   | 36X        | OTHER 'PICTURE RECORDING' PROBLEM                            | 378        | FAULTY GENLOCK FUNCTION                             | 387        | OUT OF SPECS PIXEL DEFAULTS                      |
| 359        | VCR SKEW/H-SHIFT ERROR                                                          |            |                                                              | 379        | FAULTY FLASH/STROBE FUNCTION                        | 388        | BACKGROUND BURN IN                               |
| 35A        | FROZEN PICTURE                                                                  |            |                                                              | 37A        | FAULTY DIGITAL PICTURE/ZOOMING FUNCTION             | 38X        | OTHER 'PICTURE DISPLAY/PICKUP'<br>PROBLEM        |
| 35B        | JUMPING/REPEATING PICTURE                                                       |            |                                                              | 37B        | FAULTY AUTO-EDIT FUNCTION                           |            |                                                  |
| 35X        | OTHER 'UNSTABLE PICTURE' PROBLEM                                                |            |                                                              | 37C        | FAULTY PICTURE STABILIZER FUNCTION                  |            |                                                  |
|            |                                                                                 |            |                                                              | 37D        | FAULTY PICTURE CAPTURE FUNCTION                     |            |                                                  |
|            |                                                                                 |            |                                                              | 37E        | FAULTY SUBTITLING FUNCTION                          |            |                                                  |
|            |                                                                                 |            |                                                              | 37F        | FAULTY VARIABLE SPEED PLAYBACK                      |            |                                                  |
|            |                                                                                 |            |                                                              | 37G        | FAULTY VIEW-/MULTI-ANGLE SWITCHING                  |            |                                                  |
|            |                                                                                 |            |                                                              | 37H        | FAULTY ASPECT RATIO SWITCHING                       |            |                                                  |
|            |                                                                                 |            |                                                              | 37J        | THUMBNAIL- OR INDEX PICTURE PROBLEM                 |            |                                                  |
|            |                                                                                 |            |                                                              | 37K        | NO BLANKING SCREEN                                  |            |                                                  |
|            |                                                                                 |            |                                                              | 37X        | OTHER 'SPECIAL PICTURE FUNCTION' PROBLEM            |            |                                                  |
| <b>450</b> | <b>UNSTABLE COLOUR</b>                                                          | <b>460</b> | <b>POOR COLOUR RECORDING</b>                                 | <b>470</b> | <b>SPECIAL COLOUR FUNCTION PROBLEM</b>              | <b>480</b> |                                                  |
| 451        | COLOUR FLASHING                                                                 | 461        | NO COLOUR RECORDING                                          | 471        | FAULTY AUTOMATIC WHITE BALANCE                      |            |                                                  |
| 452        | HUE CONSTANTLY CHANGING                                                         | 462        | NOISY COLOUR RECORDING                                       | 472        | FAULTY COLOUR EFFECTS FUNCTION                      |            |                                                  |
| 453        | FLICKERING COLOUR                                                               | 46X        | OTHER 'COLOUR RECORDING' PROBLEM                             | 47X        | OTHER 'SPECIAL COLOUR FUNCTION' PROBLEM             |            |                                                  |
| 454        | COLOUR NOT LOCKED                                                               |            |                                                              |            |                                                     |            |                                                  |
| 45X        | OTHER 'UNSTABLE COLOUR' PROBLEM                                                 |            |                                                              |            |                                                     |            |                                                  |
| <b>550</b> | <b>UNSTABLE AUDIO</b>                                                           | <b>560</b> | <b>POOR AUDIO RECORDING</b>                                  | <b>570</b> | <b>POOR SPECIAL AUDIO FUNCTION</b>                  | <b>580</b> | <b>STEREO/MULTI MODE OPERATION<br/>PROBLEM</b>   |
| 551        | JUMPING OR REPEATING AUDIO                                                      | 561        | AUDIO NOT BEING RECORDED                                     | 571        | FAULTY FADE OPERATION                               | 581        | NO STEREO OPERATION                              |
| 552        | AUDIO PUMPING OR BREATHING                                                      | 562        | NO ERASURE PROTECTION FOR AUDIO                              | 572        | FAULTY ECHO OPERATION                               | 582        | POOR CHANNEL SEPARATION                          |
| 553        | AUDIO DROPOUTS                                                                  | 563        | PREVIOUS AUDIO RECORDING NOT BEING ERASED                    | 573        | FAULTY MIXING OPERATION                             | 583        | DIFFERENCE IN PHASE BETWEEN<br>CHANNELS          |
| 554        | CYCLIC AUDIO MUTING                                                             | 564        | UNWANTED ERASURE OF AUDIO                                    | 574        | FAULTY REPEAT MODE OPERATION                        | 584        | PROBLEM WITH SURROUND SOUND A                    |
| 555        | WOW AND FLUTTER                                                                 | 565        | MESSAGE NOT BEING RECORDED                                   | 575        | FAULTY AUDIO PROCESSING                             | 585        | PROBLEM WITH PCM AUDIO MODE                      |
| 556        | HOWLING/ACOUSTIC FEEDBACK                                                       | 566        | DISTORTED AUDIO RECORDING                                    | 576        | FAULTY SYNC RECORDING OPERATION                     | 58X        | OTHER 'STEREO/MULTI MODE' PROBL                  |
| 557        | ECHO IN SOUND                                                                   | 56X        | OTHER 'AUDIO RECORDING' PROBLEM                              | 577        | FAULTY DBB/DOL OPERATION                            |            |                                                  |
| 55X        | OTHER 'UNSTABLE AUDIO' PROBLEM                                                  |            |                                                              | 578        | FAULTY NOISE REDUCTION OPERATION                    |            |                                                  |
|            |                                                                                 |            |                                                              | 579        | FAULTY AUDIO DUB FUNCTION                           |            |                                                  |
|            |                                                                                 |            |                                                              | 57A        | FAULTY TITLE PROGRAMMING                            |            |                                                  |
|            |                                                                                 |            |                                                              | 57B        | FAULTY MIC CONTROL                                  |            |                                                  |
|            |                                                                                 |            |                                                              | 57C        | FAULTY PITCH CONTROL                                |            |                                                  |
|            |                                                                                 |            |                                                              | 57X        | OTHER 'SPECIAL AUDIO FUNCTION' PROBLEM              |            |                                                  |
| <b>650</b> | <b>MECHANICAL INSTABILITY</b>                                                   | <b>660</b> | <b>DAMAGE TO MEDIA</b>                                       | <b>670</b> | <b>MECHANICAL OPERATION PROBLEM</b>                 | <b>680</b> | <b>LENS PROBLEM</b>                              |
| 651        | UNEVEN FEET                                                                     | 661        | TAPE GETS SCRATCHED                                          | 671        | FAULTY START/STOP OPERATION                         | 681        | FOCUS PROBLEM                                    |
| 652        | FAULTY HINGE                                                                    | 662        | DISC GETS SCRATCHED                                          | 672        | FAULTY PAUSE OPERATION                              | 682        | ZOOM PROBLEM                                     |
| 653        | VIBRATING/JUMPING                                                               | 663        | TAPE GETS CHEWED/WRINKLED                                    | 673        | FAULTY AUTOMATIC PROGRAM SEARCH                     | 683        | IRIS PROBLEM                                     |
| 654        | PARTS LOOSE                                                                     | 664        | TAPE JAMMED OR BROKEN                                        | 674        | FAULTY CUE/REVIEW MODE                              | 684        | MACRO PROBLEM                                    |
| 655        | DAMAGED WHEEL(S)                                                                | 665        | TAPE GETS CURLED                                             | 675        | FAULTY SLOW MOTION OPERATION                        | 68X        | OTHER 'LENS' PROBLEM                             |
| 65X        | OTHER 'MECHANICAL INSTABILITY' PROBLEM                                          | 666        | SLACK TAPE                                                   | 676        | FAULTY HIGH-SPEED SCANNING MODE                     |            |                                                  |
|            |                                                                                 | 667        | TAPE STICKING                                                | 677        | FAULTY SPEED COPY FUNCTION                          |            |                                                  |
|            |                                                                                 | 66X        | OTHER 'SOFTWARE DAMAGE' PROBLEM                              | 678        | FAULTY REPEAT OPERATION                             |            |                                                  |
|            |                                                                                 |            |                                                              | 679        | FAULTY RECORD REVIEW MODE                           |            |                                                  |
|            |                                                                                 |            |                                                              | 67A        | FAULTY AMS OPERATION                                |            |                                                  |
|            |                                                                                 |            |                                                              | 67B        | AUTO-REVERSE MALFUNCTION                            |            |                                                  |
|            |                                                                                 |            |                                                              | 67C        | FAULTY END DETECTION                                |            |                                                  |
|            |                                                                                 |            |                                                              | 67D        | FAULTY DISC SIDE (A-B SELECT) SWITCHING             |            |                                                  |
|            |                                                                                 |            |                                                              | 67X        | OTHER 'MECHANICAL OPERATION' PROBLEM                |            |                                                  |
| <b>750</b> | <b>PERIPHERAL PROBLEM (NON-STORAGE)</b>                                         | <b>760</b> | <b>DATA STORAGE PROBLEM</b>                                  | <b>770</b> | <b>SPECIAL DATA PROCESSING FUNCTION PROBLEM</b>     | <b>780</b> | <b>INTERFACE PROBLEM</b>                         |
| 751        | PERIPHERAL DOES NOT INITIALISE                                                  | 761        | FORMATTING PROBLEM                                           | 771        | FAULTY SELF-DIAGNOSTIC MODE                         | 781        | USB INTERFACE PROBLEM                            |
| 752        | COMMUNICATION FAILURE WITH PERIPHERAL                                           | 762        | DATA ON STORAGE MEDIUM BEING LOST                            | 772        | FAULTY WORD PROCESSING FUNCTION                     | 782        | PARALLEL INTERFACE PROBLEM                       |
| 753        | INTERNAL PERIPHERALS FAILURE                                                    | 763        | FRAME MEMORY PROBLEM                                         | 773        | FAULTY GRAPHIC EDIT FUNCTION                        | 783        | SCSI INTERFACE PROBLEM                           |
| 754        | EXTERNAL PERIPHERALS FAILURE                                                    | 764        | READ/WRITE ERRORS                                            | 774        | PROGRAM CANNOT BE INSTALLED                         | 784        | SERIAL INTERFACE PROBLEM                         |
| 755        | NETWORK CARD ERROR                                                              | 765        | HARD- OR OPTICAL DRIVE PROBLEM                               | 775        | PRE-LOADED PROGRAM CANNOT BE STARTED UP             | 785        | INCOMPATIBLE WITH OTHER SYSTEM:                  |
| 756        | PERIPHERAL FAILS SELF-TEST                                                      | 766        | FLOPPY DRIVE PROBLEM                                         | 776        | NOT PRE-LOADED PROGRAM CANNOT BE STARTED UP         | 786        | AUDIO/VIDEO INTERFACE PROBLEM                    |
| 75X        | OTHER PERIPHERAL PROBLEM                                                        | 767        | CD/DVD-ROM DRIVE PROBLEM                                     | 777        | VIRUS ALARM                                         | 787        | I.LINK/FIREWIRE/IEEE1394 INTERFACE<br>PROBLEM    |
|            |                                                                                 | 768        | TAPE PROBLEM                                                 | 77X        | OTHER 'SPECIAL DATA FUNCTION' PROBLEM               | 78X        | OTHER 'INTERFACE' PROBLEM                        |
|            |                                                                                 | 769        | DRIVE WILL NOT MOUNT/CANNOT ACCESS DRIVE                     |            |                                                     |            |                                                  |
|            |                                                                                 | 76A        | DISCS EXCHANGE PROBLEM                                       |            |                                                     |            |                                                  |
|            |                                                                                 | 76B        | READ/WRITE OPERATION VERY SLOW                               |            |                                                     |            |                                                  |
|            |                                                                                 | 76X        | OTHER 'DATA READ/WRITE' PROBLEM                              |            |                                                     |            |                                                  |
| <b>850</b> | <b>UNSTABLE PRINTER OPERATION</b>                                               | <b>860</b> | <b>RIBBON/PAPER PROBLEMS</b>                                 | <b>870</b> |                                                     | <b>880</b> | <b>FAULTY FONT/CHARACTER FUNCTI</b>              |
| 851        | UNSTABLE PAPER LOADING                                                          | 861        | RIBBON BROKEN                                                |            |                                                     | 881        | INCORRECT CHARACTERS OR IMAGE                    |
| 852        | UNSTABLE MULTI-PAPER LOADING                                                    | 862        | RIBBON STUCK/STICKING                                        |            |                                                     | 882        | INCORRECT CHARACTER SIZE                         |
| 853        | INCORRECT LINE-UP OF CHARACTERS                                                 | 863        | RIBBON DERAILED                                              |            |                                                     | 883        | FONT LOADING PROBLEM                             |
| 85X        | OTHER 'UNSTABLE PRINTER OPERATION'<br>PROBLEM                                   | 864        | PAPER STUCK/STICKING TO MECHANISM                            |            |                                                     | 88X        | OTHER FAULTY FONT/CHARACTER<br>FUNCTION' PROBLEM |
|            |                                                                                 | 865        | PAPER JAM                                                    |            |                                                     |            |                                                  |
|            |                                                                                 | 866        | DOCUMENT JAM                                                 |            |                                                     |            |                                                  |
|            |                                                                                 | 867        | ERRONEOUS 'NO INKT/TONER' MESSAGE                            |            |                                                     |            |                                                  |
|            |                                                                                 | 86X        | OTHER 'RIBBON/PAPER' PROBLEM                                 |            |                                                     |            |                                                  |

EACEM - SECTION CODES

| COMMON          |                                |
|-----------------|--------------------------------|
| ANT             | ANTENNA SECTION                |
| APR             | SIGNAL PROCESSING (ANALOG)     |
| BCH             | BATTERY CHARGE                 |
| CLK             | CLOCK/TIMER SECTION            |
| CPA             | COLOUR PROCESSING/ANALOG       |
| CTR             | CONTROL PANEL                  |
| DPR             | SIGNAL PROCESSING (DIGITAL)    |
| ERA             | ERASE CIRCUIT                  |
| FLX             | FLEXIBLE PRINTED CIRCUIT BOARD |
| HFS             | HIGH FREQUENCY SECTION (RF)    |
| IDS             | INFORMATION DISPLAY SECTION    |
| IFC             | IF-CIRCUIT                     |
| ILN             | i.LINK (IEEE1394) SECTION      |
| INP             | SIGNAL INPUT SECTION           |
| IRD             | INFRARED (IrDA) SECTION        |
| MEM             | MEMORY CIRCUIT                 |
| OUT             | SIGNAL OUTPUT SECTION          |
| PRG             | PROGRAMMING SECTION            |
| PRT             | PROTECTION CIRCUIT             |
| PSU             | POWER SUPPLY                   |
| PWA             | POWER AMP SECTION              |
| REM             | REMOTE CONTROL SECTION         |
| RFU             | BOOSTER,RF UNIT                |
| SFT             | SOFTWARE (TAPE, DISC, ETC.)    |
| SNS             | SENSOR UNIT                    |
| SVO             | SERVO SECTION                  |
| SYS             | SYSTEM CONTROL SECTION         |
| TUN             | TUNING SECTION                 |
| TXT             | TEXT PROCESSING                |
| SOUND-RELATED   |                                |
| APA             | AUDIO PROCESSING/ANALOG        |
| APD             | AUDIO PROCESSING/DIGITAL       |
| CDC             | CD CHANGER SECTION             |
| CDS             | CD SECTION                     |
| MDC             | MD CHANGER SECTION             |
| MDS             | MINIDISC SECTION               |
| MIC             | MICROPHONE SECTION             |
| PUD             | PICK-UP DEVICE                 |
| SHD             | STATIONARY HEAD(S)             |
| SPK             | SPEAKER                        |
| PICTURE-RELATED |                                |
| CAM             | CAMERA CIRCUIT                 |
| CPD             | COLOUR PROCESSING/DIGITAL      |
| CRT             | PICTURE TUBE                   |
| DFL             | DEFLECTION CIRCUIT             |
| DVD             | DVD SECTION                    |
| FPK             | FOCUS PACK                     |
| IMG             | IMAGE DISPLAY UNIT             |

| PICTURE-RELATED |                          |
|-----------------|--------------------------|
| LCD             | LCD SECTION              |
| LMP             | LAMP/FLASH SECTION       |
| VPA             | VIDEO PROCESSING/ANALOG  |
| VPD             | VIDEO PROCESSING/DIGITAL |
| VWF             | VIEWFINDER               |
| PC-RELATED      |                          |
| FDD             | FLOPPY DISC DRIVE        |
| FMW             | FIRMWARE                 |
| HDD             | HARD DISC DRIVE          |
| ISA             | ISA SECTION              |
| JST             | JOYSTICK                 |
| KBD             | KEYBOARD (SEPARATE)      |
| MDM             | MODEM SECTION            |
| NIF             | NETWORK INTERFACE        |
| PAR             | PARALLEL PORT            |
| PCC             | PC CARD                  |
| PCI             | PCI SECTION              |
| SCS             | SCSI PORT                |
| SER             | SERIAL PORT              |
| USB             | USB PORT                 |
| MECHANICAL      |                          |
| ARM             | ARM MECHANISM            |
| BZL             | BEZEL                    |
| CBT             | CABINET                  |
| CHA             | CHASSIS                  |
| DDM             | DISC DRIVE MECHANISM     |
| EXC             | EXTERNAL CONNECTOR       |
| HCM             | HEAD CARRIAGE MECHANISM  |
| HOL             | CASSETTE HOLDER          |
| INC             | INTERNAL CONNECTOR       |
| LDG             | LOADING MECHANISM        |
| LNM             | LENS MECHANISM           |
| PFM             | PAPER FEED MECHANISM     |
| PIN             | PINCH ROLLER/LEVER       |
| PRI             | PRINT BLOCK              |
| RFM             | RIBBON FEED MECHANISM    |
| RHD             | ROTARY HEAD(S)           |
| SLD             | SLED MECHANISM           |
| SRS             | SUPPLY REEL SECTION      |
| STA             | STATIC BLOCK             |
| TDM             | TAPE DRIVE MECHANISM     |
| THR             | THREADING MECHANISM      |
| TNR             | TENSION REGULATOR        |
| TPT             | TAPE PATH                |
| TRS             | TAKE-UP REEL SECTION     |
| WIR             | LEAD WIRE                |
| XXX             | CABINET/COSMETIC PARTS   |

EXAMPLE OF USE:

| FLAG | SYMPTOM CODE |   |   |   | PART NO. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | REF. NO. |   |   |   |   |   | SECTION |   |   | PCB |   |   |   |   |   | DEFECT CODE |   | REPAIR CODE |  | QTY |
|------|--------------|---|---|---|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|---|---------|---|---|-----|---|---|---|---|---|-------------|---|-------------|--|-----|
|      |              |   |   |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |         |   |   |     |   |   |   |   |   |             |   |             |  |     |
| 1    | 1            | 4 | 1 | 2 | 1        | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | R        | 1 | 2 | 3 | . | T | D       | M | Y | A   | 2 | 2 | . | C | 1 | Z           | 1 |             |  |     |
| .    | 3            | 6 | 4 | 1 | 3        | 4 | 5 | 6 | 7 | 8 | 9 | X | X | X | X | X | X | X | X | X | 1        | 1 | 1 | . | . | . | .       | . | . | .   | . | . | . | . | . | .           |   |             |  |     |

FLAG: INDICATES THE ONE MAJOR SYMPTOM/PART COMBINATION BY '1'

## DEFECT CODES

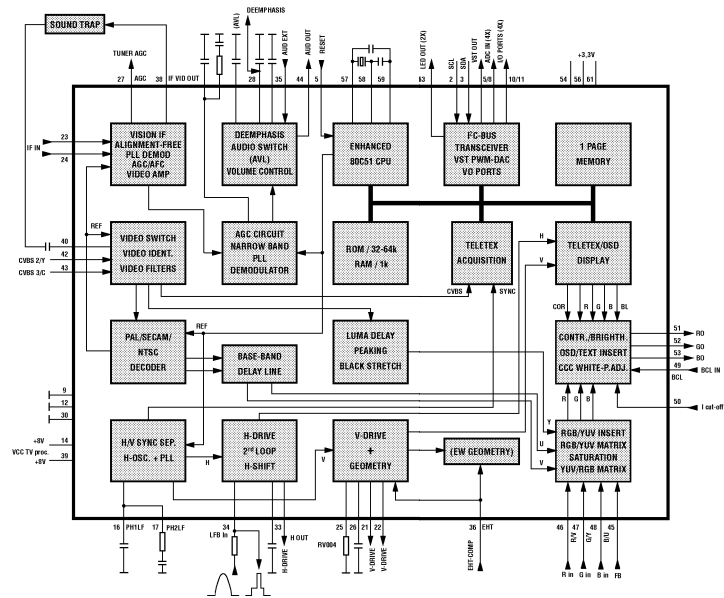
| MECHANICAL |                                         | ELECTRICAL |                                                       |
|------------|-----------------------------------------|------------|-------------------------------------------------------|
| A          | WORN OUT (OR GENERAL MECHANICAL DEFECT) | N          | DEFECTIVE ELECTRICAL COMPONENT/MODULE                 |
| A1         | MISOPERATING                            | O          | BURNT, ARCING, MISSING PIXELS                         |
| B          | DIRTY, CLOGGED                          | P          | ELECTRICALLY MISALIGNED/WRONG SETTING                 |
| C          | MECHANICALLY MISALIGNED                 | Q          | SHORT CIRCUIT                                         |
| D          | CUT, BROKEN                             | R          | OPEN CIRCUIT                                          |
| E          | DEFORMED                                | S          | LEAKING (ELECTRICAL)                                  |
| F          | SNAPPED                                 | T          | BAD CONTACT, CONNECTION                               |
| G          | SCRATCHED, DENTED, SHARP EDGES          | T1         | BAD EARTH CONNECTION                                  |
| H          | CRACKED, PEELED, CORRODED, MELTED       | U          | OPEN PATTERN                                          |
| I          | LOOSE/OFF/STRIPPED                      | V          | CRACKED PRINTED CIRCUIT BOARD                         |
| J          | SHAKY, UNSTABLE                         | W          | COLD OR NO SOLDERING                                  |
| K          | LEAKING (MECHANICAL)                    | X          | BRIDGED SOLDERING                                     |
| L          | DRY (NO LUBRICANT)                      | Y          | WRONG COMPONENT/MODULE                                |
| M          | FOREIGN OBJECT                          | Z          | MISSING COMPONENT/MODULE                              |
|            |                                         | 1          | SOFTWARE PROBLEM                                      |
|            |                                         | 11         | LOSING DATA FROM MEMORY                               |
|            |                                         | 12         | FAULTY PROGRAM SETTING/INSTALLATION                   |
|            |                                         | 13         | SOFTWARE DEFECTIVE OR INCOMPLETE                      |
|            |                                         | 14         | SOFTWARE SETUP PROBLEM                                |
|            |                                         | 15         | NO IDENTIFICATION / AUTHENTICATION OF PRODUCT OR USER |
|            |                                         | 2          | EXHAUSTED, LOW EMISSION                               |
|            |                                         | 3          | NO PROBLEM FOUND (SET WITHIN SPEC)                    |
|            |                                         | 4          | NO PROBLEM FOUND - CUSTOMER MISUNDERSTANDING          |
|            |                                         | 5          | NO PROBLEM FOUND - LOCAL CONDITIONS                   |
|            |                                         | 51         | FAULTY MAINS VOLTAGE                                  |
|            |                                         | 6          | UNABLE TO DIAGNOSE FAULT                              |
|            |                                         | 7          | INCORRECTLY WIRED/ASSEMBLED                           |
|            |                                         | 81         | INCORRECT EQUIPMENT CONNECTION                        |
|            |                                         | 9          | CUSTOMER MISUSE                                       |
|            |                                         | 93         | UNAUTHORISED MODIFICATION                             |

## REPAIR CODES

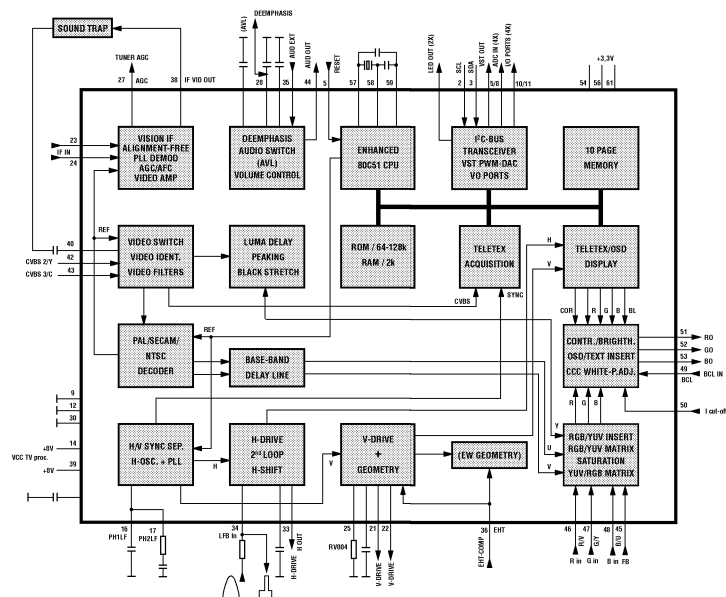
|    |                                                      |    |                                               |
|----|------------------------------------------------------|----|-----------------------------------------------|
| A  | REPLACEMENT                                          | Q  | PREVENTIVE ACTION WITHOUT PARTS REPLACEMENT   |
| B  | MECHANICAL ALIGNMENT                                 | U  | EXPLANATION FOR CUSTOMER                      |
| C  | ELECTRICAL ALIGNMENT                                 | V  | COST ESTIMATION REFUSED                       |
| D  | RESOLDERING                                          | W  | COST ESTIMATION WITH PARTS                    |
| D1 | REFITTING, PUT BACK IN POSITION (CONNECTOR, TUBE...) | X  | COST ESTIMATION WITHOUT PARTS                 |
| E  | CLEANING                                             | Y  | RETURN WITHOUT REPAIR                         |
| F  | LUBRICATION                                          | Z  | PRODUCT EXCHANGE                              |
| G  | REPAIRED ELECTRICAL PARTS                            | Z1 | PRODUCT EXCHANGE (REPAIR TOO EXPENSIVE)       |
| H  | REPAIRED MECHANICAL PARTS                            | Z2 | PRODUCT EXCHANGE (TOO MANY VISITS/REPAIRS)    |
| I  | MODIFICATION REQUESTED BY MANUFACTURER               | Z3 | PRODUCT EXCHANGE (PARTS NOT AVAILABLE)        |
| J  | REMOVED                                              | Z4 | PRODUCT EXCHANGE (IMPOSSIBLE TO REPAIR)       |
| K  | ADDED                                                | Z5 | PRODUCT EXCHANGE (ON REQUEST OF RETAILER)     |
| L  | FUNCTIONAL CHECK                                     | Z6 | PRODUCT EXCHANGE (ON REQUEST OF MANUFACTURER) |
| M  | SPECIFICATION MEASUREMENT                            | 1  | SOFTWARE CORRECTION/RESET                     |
| N  | MAINTENANCE                                          | 2  | SOFTWARE UPGRADE                              |
| O  | REFURBISHING, RECONDITIONING                         | 3  | PRODUCT UPGRADE (ON REQUEST)                  |
| P  | PREVENTIVE PARTS REPLACEMENT                         |    |                                               |

INTEGRATED CIRCUITS BLOCK DIAGRAMS - SYNOPTIQUES INTERNES DES CIRCUITS INTEGRES - INTEGRIERTE SCHALTUNGEN BLOCKSCHALTBIlder - SCHEMA A BLOCCHI DEL CIRCUITI INTEGRATI - VISTA INTERNA DE LOS CIRCUITOS INTEGRADOS

TDA9351N1 MICROPROCESSOR

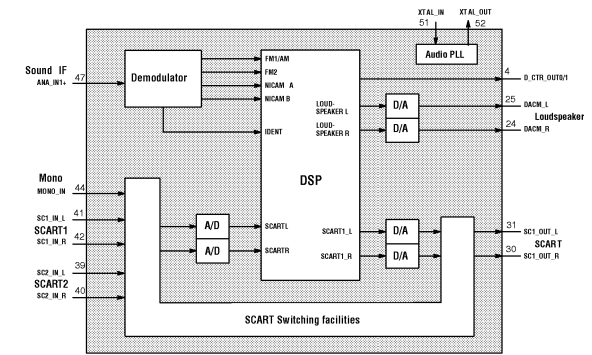


TDA9367N1 MICROPROCESSOR

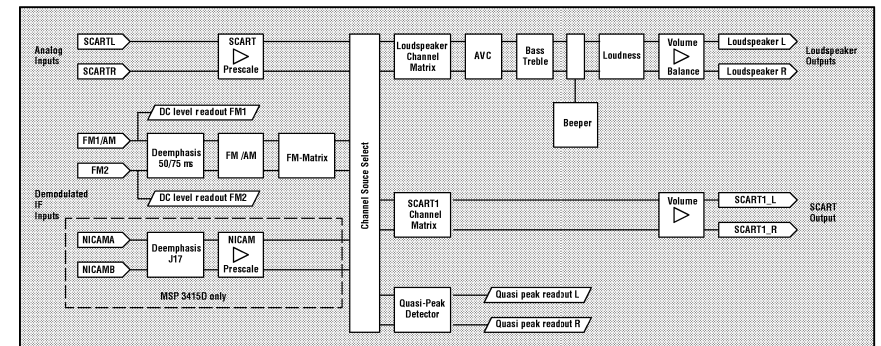


MSP 3415D

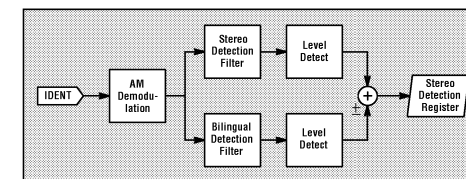
MULTISTANDARD SOUND PROCESSOR



AUDIO BASEBAND PROCESSING

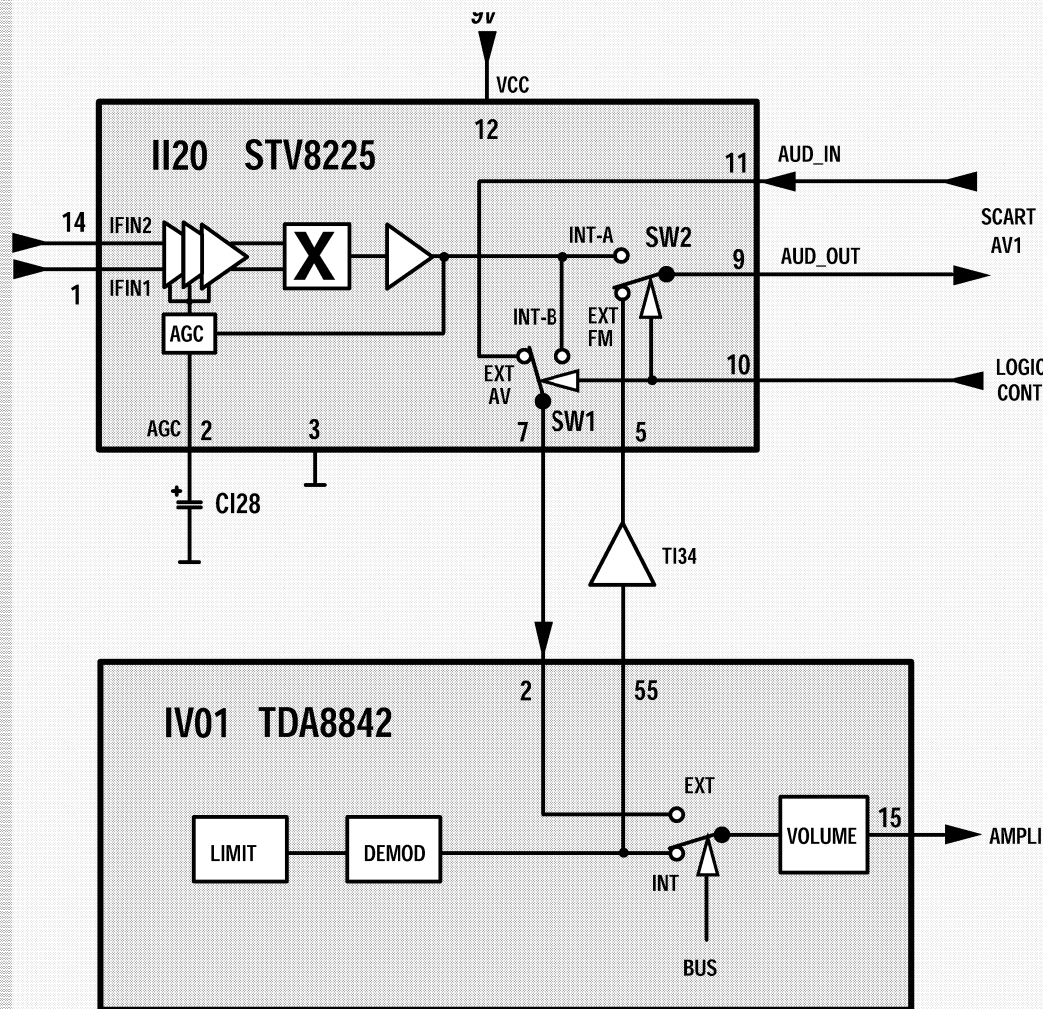


DETECTION PART OF THE MSP3415D





LOGIC CONTROL II20 - IV01



|        | Logic Control<br>PIN 10 / II20 | IV01 | II20                         |
|--------|--------------------------------|------|------------------------------|
| BG     | 0V                             | INT  | SW2 : EXT-FM                 |
| LL'    | 3V                             | EXT  | SW1 : INT- B<br>SW2 : INT- A |
| LL' AV | 5V                             | EXT  | SW1 : EXT-AV<br>SW2 : INT- A |
| BG AV  | 7.5V                           | EXT  | SW1 : EXT-AV<br>SW2 : EXT-FM |

## POWER SUPPLY CHECKS



Use an isolation transformer when repairing a defective set.

### No voltage

+300V voltage absent on CP08. Carry out the following tests :

- Mains supply voltage present ?

If correct:

- Check FP01 and RP01
  - If FP01 is open circuit : check degaussing RP02
  - If FP01 or RP01 are open circuit : check TP20
  - If TP20 is short circuit check : replace TP20, TP22 and TP23

### TP20 does not switch

Correct voltage present on CP08 but TP20 is not switching.

Carry out the following tests :

- Voltage the gate of TP20 :
  - No voltage or  $< 2V$  ?
  - check TP20 and RP20.
    - If TP20 or RP20 is open circuit : replace TP22 and TP23 ,RP20,TP20.
- Check DP27, DP21, TP25, DP25, RP21, RP90
- Check TP22 and TP23.

### System UB voltage too low

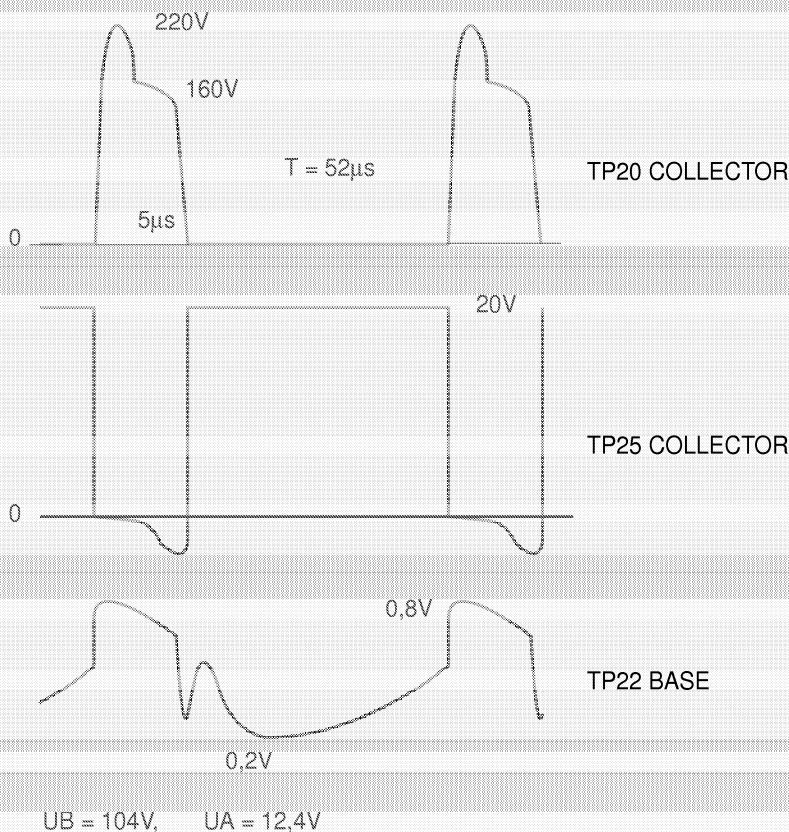
If the operating conditions described below (+300V/CP08, TP020 switching) are correct:

- Check IP01, IP50 and TP52.

## POWER SUPPLY FAULT FINDING GUIDE

### POWER SUPPLY CHECKS, LOW VOLTAGE METHOD

- Carefully discharge capacitor CP08
- Shunt resistors RP05 to RP07 using a 10-K resistor.
- Connect point 9 of LP03 to the junction point of RP05/CP06.
- Earth the base of TP52 (to prevent instability).
- Earth the base of TR08 (JR24) (forcing standby to prevent instability).
- Connect a 12V DC supply to pin 9 of LP03.



### POWER SUPPLY CHECKS USING A LOAD RESISTOR

- Disconnect pin 1 from LL05.
- Earth the base of TP52 (to prevent instability at switch "ON").
- Connect the mains supply voltage .  
Collector TP20 : 580Vpp,  $T=20\mu s$ .  
 $U_B = 104V$
- Load the UB supply rail with 220V / 75W bulb.  
Collector TP20 : 580Vpp,  $T=10\mu s$ .  
 $U_B = 104V$ .

**A DIFFERENCES BETWEEN EUROPE AND ASIA**

| POSITION     | EUROPE      | ASIA               |
|--------------|-------------|--------------------|
| RI48         | 220R        | 180R               |
| RI49         | 180R        | 180R               |
| CP08         | 100uF/400   | 220uF/450V         |
| CP09         | 1N5F        | 2N2                |
| DP01         | RS20SL-L105 | RS25S-K105         |
| DP82         | DELETE      | ADD                |
| JP02         | AD          | DELETE             |
| LP02         | OREGA 12MH  | PANASONIC          |
| LP03         | OREGA SMT17 | FRONTIER SERV-3513 |
| RP01         | 5F1/5W      | 2H7                |
| RP01B        | DELETE      | POS 5R0            |
| RP02         | DELETE      | DELETE             |
| RP02A        | DELETE      | ADD 5R0            |
| RP03         | DELETE      | 5R                 |
| RP05/06/7    | 270K/0.25W  | 120K/0.25W         |
| RP41         | 22K         | 18K                |
| TP20         | STP5NAR0F1  | STP5N80F1          |
| EP01         | DELETE      | EAZY100471         |
| DRM          | 1N4148      | DELETE             |
| IB01(TX1)    | VT01        | VT02               |
| IB01(WO TX1) | VN01        | VN02               |
| LR03         | 0R          | 0R                 |
| LR04         | 0R          | 0R                 |
| RR16         | 220R        | 3K6                |
| RR17         | 1K          | 3K6                |
| RR18         | 1K          | 3K6                |
| RR19         | 1K          | 3K6                |
| RR20         | DELETE      | 680R0              |
| RR24         | ADD         | DELETE             |
| RR50         | 1K          | 0R                 |
| RR80         | DELETE      | ADD                |
| RR81         | ADD         | DELETE             |
| CV24         | ADD         | DELETE             |
| CV25         | ADD         | DELETE             |
| CV26         | ADD         | DELETE             |
| CV40         | DELETE      | ADD                |
| JV58         | DELETE      | ADD                |
| JV59         | DELETE      | ADD                |
| RA03         | ADD         | 15K                |
| RV16         | ADD         | DELETE             |
| RV17         | ADD         | DELETE             |
| RV18         | ADD         | DELETE             |
| RV19         | ADD         | DELETE             |
| RV20         | ADD         | DELETE             |
| RV21         | ADD         | DELETE             |
| RV22         | ADD         | DELETE             |
| RV23         | ADD         | DELETE             |
| RV34         | ADD         | DELETE             |
| RV35         | 28R         | ADD                |
| RV36         | ADD         | DELETE             |
| RV42         | DELETE      | ADD                |
| RV44         | 0R          | 15R                |
| TV01         | ADD         | DELETE             |
| TV02         | ADD         | DELETE             |
| TV03         | ADD         | DELETE             |
| TV04         | ADD         | DELETE             |
| TV05         | ADD         | DELETE             |
| TV06         | ADD         | DELETE             |
| TV07         | ADD         | DELETE             |
| TV08         | ADD         | DELETE             |
| DX04         | DELETE      | ADD                |
| RX01         | 390R        | 4K7                |
| RX02         | 390R        | 4K7                |
| RX03         | 390R        | 4K7                |
| RX04         | 220R        | 3K3                |
| RX11         | 6K2         | 6K2                |
| RX02         | ADD         | DELETE             |
| BE01         | SCART       | CINCH              |

**B DIFFERENCES BETWEEN 14" AND 20"/21" (CRT BOARDS, POWER)**

| POSITION   | 14"        | 20"/21"    |
|------------|------------|------------|
| CT15161/71 | 820P       | 270P/330P  |
| CT15262/72 | 880P       | DELETE     |
| DT15161/71 | 150R       | 1N4148     |
| DT15262/72 | 1N4148     | DELETE     |
| DT15363/73 | JUMPER     | BAT85      |
| RT15161/71 | 10K        | 12K        |
| RT15565/75 | DELETE     | 1K         |
| RT15666/76 | 220R       | 150R       |
| RT15969/79 | 47R        | 47R        |
| TT15161/71 | DELETE     | BT402      |
| CP50       | 1N550V     | 2N2/50V    |
| CP90       | 1000uF/16V | 1000uF/25V |
| DP27       | 24V        | 27V        |
| DP40       | 24V        | 27V        |
| DP82       | DELETE     | BYW76      |
| LP90       | JUMPER     | DELETE     |
| LP91       | DELETE     | JUMPER     |
| RP29       | 15K        | 22K        |
| RP37       | 18K        | 33K        |
| RP53       | 10K        | 10K        |
| RP90       | 0.22/0.25W | 0.22/0.35W |
| SP01       | DELETE     | DELETE     |

**C DIFFERENCES BETWEEN MINI NECK AND NARROW NECK PICTURE**

| POSITION | MINI   | NARROW |
|----------|--------|--------|
| JT81     | ADD    | DELETE |
| JT82     | DELETE | ADD    |
| JT83     | DELETE | ADD    |
| JT84     | ADD    | DELETE |

**D PICTURE TYPE MATCHING**

| CRT        | 14" CHUNG HWA | 14" POLCOLOR | 14" THAI CRT | 14" ORION | 20" CHUNG HWA | 20" VIDEOCOLOR | 21" CHUNG HWA | 21" VIDEOCOLOR |
|------------|---------------|--------------|--------------|-----------|---------------|----------------|---------------|----------------|
| HP09K      | 1.37          | 1.5          | 1.5          | 1.37      | 1.82          | 1.58           | 1.82          | 1.58           |
| HP17K      | 1.37          | 1.5          | 1.5          | 1.37      | 1.82          | 1.58           | 1.82          | 1.58           |
| CL10pF     | 680           | 560          | 560          | 680       | 620           | 680            | 680           | 680            |
| RL14H      | 1.011W        | 0.4711W      | 1.011W       | 1.011W    | 0.4711W       | 0.4711W        | 0.4711W       | 0.4711W        |
| LL05       | 20820700      | 20820700     | 20820700     | 20820700  | 20820700      | 20820700       | 20820700      | 20820700       |
| LL05       | 20840590      | 20840590     | 20840590     | 20840590  | 20835940      | 20835940       | 20835940      | 20835940       |
| CL04nF     | 6.5           | 6.5          | 6.5          | 6.5       | 8.8           | 8.8            | 8.2           | 8.2            |
| CL05nF     | 390           | 470          | 470          | 390       | 470           | 390            | 390           | 390            |
| CL08nF     | -----         | -----        | -----        | -----     | -----         | -----          | -----         | -----          |
| CL330nF    | -----         | -----        | -----        | -----     | -----         | -----          | -----         | -----          |
| DL08       | -----         | -----        | -----        | -----     | -----         | -----          | -----         | -----          |
| FL01       | JUMPER        | JUMPER       | JUMPER       | JUMPER    | JUMPER        | JUMPER         | JUMPER        | JUMPER         |
| RL00H      | DELETE        | DELETE       | DELETE       | DELETE    | DELETE        | DELETE         | DELETE        | DELETE         |
| RL08H      | JUMPER        | JUMPER       | JUMPER       | JUMPER    | JUMPER        | JUMPER         | JUMPER        | JUMPER         |
| RL03K      | -----         | -----        | -----        | -----     | -----         | -----          | -----         | -----          |
| RL07R      | 391W          | 391W         | 391W         | 391W      | 391W          | 391W           | 391W          | 391W           |
| RL12R      | S2000N        | S2000N       | S2000N       | S2000N    | S2000N        | S2000N         | S2000N        | S2000N         |
| RL07H      | 221W          | 221W         | 221W         | 221W      | 151W          | 151W           | 151W          | 151W           |
| RL02       | BUH5151H      | BUH5151H     | BUH5151H     | BUH5151H  | BUH5151H      | BUH5151H       | BUH5151H      | BUH5151H       |
| RL08K      | -----         | -----        | -----        | -----     | -----         | -----          | -----         | -----          |
| RL08K      | 3.9           | 3.9          | 3.9          | 3.9       | 5.6           | 5.6            | 5.6           | 5.6            |
| RL10K      | 15.0          | 15.0         | 15.0         | 15.0      | 13.0          | 13.0           | 13.0          | 13.0           |
| RL12R      | 0.68          | 0.22         | 0.68         | 0.68      | 0.22          | 0.22           | 0.22          | 0.22           |
| RL20H      | 15.5W         | 15.5W        | 15.5W        | 15.5W     | 47.35W        | 47.35W         | 47.35W        | 47.35W         |
| RL41K      | 22            | 22.0         | 22.0         | 22.0      | 18.0          | 18.0           | 18.0          | 18.0           |
| RL62K      | 82.5          | 82.5         | 82.5         | 82.5      | 41.2          | 41.2           | 41.2          | 41.2           |
| RP54K      | 2.0           | 2.0          | 2.0          | 2.0       | 1.82          | 1.82           | 1.82          | 1.82           |
| UBV        | 105.5         | 105.5        | 105.5        | 105.5     | 115.5         | 115.5          | 115.5         | 115.5          |
| PH07       | 360           | 360          | 360          | 360       | 4K7           | 4K7            | 4K7           | 4K7            |
| DT5262/72  | RCF TK2       | HA2K2        | TBC          | TBC       | TK2           | TK2            | TK2           | TK2            |
| RT15767/77 | 1N4148        | BAV21        | TBC          | TBC       | -             | -              | -             | -              |

**F DIFFERENCES FOR 5W ASIA/EUROPE ACOUSTIC REQUIREMENTS**

| POSITION | EUROPE | ASIA   |
|----------|--------|--------|
| CA03     | 22nF   | 39nF   |
| RA03     | 15K    | 7K5    |
| RA04     | 56K    | 7K5    |
| RA05     | 2K7    | JUMPER |

**G DIFFERENCES FOR JA01 OPTIONS**

| POSITION |                                                                               |
|----------|-------------------------------------------------------------------------------|
| JA01     | WITH HEADPHONE (BE02), JA01 DELETED.<br>WITHOUT HEADPHONE (BE02), JA01 ADDED. |

**H DIFFERENCES FOR SCART AND CINCH CONNECTORS**

| POSITION | SCART WITH I120 | SCART WITHOUT I120 | CINCH WITHOUT I120 |
|----------|-----------------|--------------------|--------------------|
| RI02     | 7K5             | 10K                | 5K6                |
| RI03     | 7K5             | 10K                | 5K6                |
| RI72     | 510R            | 18K                | 27K                |
| RI75     | 560R            | 4K7                | 2K                 |
| CA21     | 330pF           | 470pF              | 470pF              |
| CI01     | 270pF           | 270pF              | 270pF              |
| CI02     | 270pF           | 270pF              | 270pF              |

**I FOR MACROVISION**

| POSITION | OTHERS      | LL' SETS   | REMARK                  |
|----------|-------------|------------|-------------------------|
| CI42     | MPC47nF     | 5mm JUMPER | SOLDERED ON COPPER SIDE |
| CI38     | 10mm JUMPER | CO 47nF    |                         |
| CV31     | CC47nF      | DELETE     |                         |

\* REFER TO PART LIST

**E DIFFERENCES AMONG AUDIO OUTPUT POWER REQUIREMENT**

| POSITION | 12W (14" EUROPE)                                 | 3W (14" ASIA) | 5W (20"/21" ASIA EU) |
|----------|--------------------------------------------------|---------------|----------------------|
| CA03     | 15nF                                             | 22nF          | 22nF                 |
| CA04     | 15nF                                             | 10nF          | 22nF                 |
| CA06     | DELETE                                           | 100nF         | 100nF                |
| CA09     | DELETE                                           | 4n7F          | 4n7F                 |
| IA21     | DELETE                                           | TD47253       | TD47253              |
| IA22     | DELETE                                           | TD47257       | DELETE               |
| JA06     | DELETE                                           | JUMPER        | JUMPER               |
| JA07     | DELETE                                           | JUMPER        | JUMPER               |
| JA08     | DELETE                                           | JUMPER        | JUMPER               |
| LA01     | LP03-Cincho SMT use470H<br>LP03-TDK SMT USE 22uH | -----         | -----                |
| RA03     | 12K                                              | 12K           | 15K                  |
| RA04     | 6R8                                              | 33K           | 5K6                  |
| RA05     | 2K7                                              | 180R          | 2K7                  |
| RA06     | 4K7                                              | DELETE        | DELETE               |
| RA13     | DELETE                                           | 4R7           | 4R7                  |
| RA25     | DELETE                                           | 1K2           | 1K2                  |
| RA26     | DELETE                                           | 47R           | 47R                  |
| RA22     | 3K3                                              | 2K4           | 2K4                  |
| RA31     | 1R5                                              | 22R           | 22R                  |
| CA24     | DELETE                                           | ADD           | ADD                  |

\* REFER TO PART LIST

**J DIFFERENCES BETWEEN BGHILL' - BGDKK' - BG AND I**

| POSITION | BGHILL'(VST)         | BGDKK                | BG                  | I                   | BGHILL'(FST)        |
|----------|----------------------|----------------------|---------------------|---------------------|---------------------|
| CI21     | 1N1                  | -                    | -                   | -                   | 100uF               |
| CI23     | 22nF                 | -                    | -                   | -                   | 22nF                |
| CI24     | 22nF                 | -                    | -                   | -                   | 22nF                |
| CI27     | 22uF                 | -                    | -                   | -                   | 22uF                |
| CI28     | 10uF                 | -                    | -                   | -                   | 10uF                |
| CI27     | 22nF                 | 22nF                 | -                   | -                   | 22nF                |
| CI38     | 22nF                 | 22nF                 | -                   | -                   | 22nF                |
| CI39     | 1N1                  | 1N1                  | -                   | -                   | 1N1                 |
| CI40     | -                    | -                    | -                   | -                   | -                   |
| CI50     | 1P5F                 | -                    | -                   | -                   | 1P5F                |
| CI80     | 4N7F                 | 4N7F                 | -                   | -                   | 4N7F                |
| CI81     | 2P7F                 | 2P7F                 | -                   | -                   | 2P7F                |
| CI82     | 9P8F                 | 9P8F                 | -                   | -                   | 9P8F                |
| CI83     | 22P7                 | 22P7                 | -                   | -                   | 22P7                |
| CI84     | 47P7                 | 47P7                 | -                   | -                   | 47P7                |
| DI20     | BA282                | -                    | -                   | -                   | BA282               |
| DI21     | BA282                | -                    | -                   | -                   | BA282               |
| DI31     | BA282                | BA282                | 0R                  | -                   | BA282               |
| DI32     | BA282                | BA282                | -                   | 0R                  | BA282               |
| DI33     | 1N4148               | -                    | -                   | -                   | 1N4148              |
| DI34     | 0R                   | -                    | -                   | -                   | 0R                  |
| DI80     | BA282                | BA282                | -                   | -                   | BA282               |
| IP20     | STV8225              | -                    | -                   | -                   | STV8225             |
| JI21     | -                    | 0R                   | 0R                  | 0R                  | -                   |
| JI22     | -                    | 220R                 | 220R                | 220R                | -                   |
| JI23     | -                    | -                    | -                   | -                   | -                   |
| JI24     | -                    | 0R                   | 0R                  | 0R                  | -                   |
| JI25     | 0R                   | -                    | -                   | -                   | 0R                  |
| JI26     | 0R                   | -                    | -                   | -                   | 0R                  |
| JI25     | 0R                   | 0R                   | 0R                  | -                   | 0R                  |
| JI36     | 0R                   | -                    | -                   | -                   | 0R                  |
| JI37     | 0R                   | -                    | -                   | -                   | 0R                  |
| JI63     | 0R                   | -                    | -                   | -                   | 0R                  |
| LI30     | LA 7X7 77 8MHz 135NH | LA 7X7 77 6MHz 150NH | LA7X7 77 8MHz 150NH | LA7X7 77 8MHz 150NH | LA7X7 77 8MHz 135NH |
| LI32     | LF 4U7H              | LF 3U6H              | LF 4U7H             | LF 4U7H             | LF 3U6H             |
| LI31     | LA 7X7 32 4MHz       | LA 7X7 29 6MHz       | -                   | -                   | LA7X7 32 4MHz       |
| CI20     | FILSW15456M          | -                    | -                   | -                   | FILSW15456M         |
| CI30     | FILSW1952M           | FILSW2967M           | FILSW1952M          | FILSW1952M          | FILSW1952M          |
| CI31     | FILC 5M5Hz           | FILC 5M5Hz           | FILC 5M5Hz          | FILC 5M5Hz          | FILC 5M5Hz          |
| CI32     | FILC 6M0Hz           | FILC 6M0Hz           | FILC 6M0Hz          | FILC 6M0Hz          | FILC 6M0Hz          |
| CI33     | FILCTRP 5M74Hz       | FILCTRP 5M74Hz       | FILCTRP 5M74Hz      | FILCTRP 5M74Hz      | FILCTRP 5M74Hz      |
| CI34     | FILCTRP 6M0Hz        | FILCTRP 6M0Hz        | -                   | FILCTRP 6M0Hz       | FILCTRP 6M0Hz       |
| RI11     | 180R                 | 68R                  | 68R                 | 8R                  | 180R                |
| RI13     | 4K7                  | 8K2                  | 8K2                 | 47R                 | 8K2                 |
| RI17     | 22R                  | 39R                  | 47R                 | 47R                 | 10R                 |
| RI20     | 2K2                  | -                    | -                   | -                   | 2K2                 |
| RI21     | 6K8                  | -                    | -                   | -                   | 6K8                 |
| RI22     | 10K                  | -                    | -                   | -                   | 10K                 |
| RI23     | 10K                  | -                    | -                   | -                   | 10K                 |
| RI24     | 100R                 | -                    | -                   | -                   | 100R                |
| RI38     | 1K8                  | -                    | -                   | -                   | 1K8                 |
| RI39     | 1K8                  | -                    | -                   | -                   | 1K8                 |
| RI40     | -                    | -                    | -                   | -                   | -                   |
| RI41     | 4K7                  | 4K7                  | -                   | -                   | 4K7                 |
| RI45     | 120R                 | 120R                 | 120R                | 120R                | 100R                |
| RI56     | 12K                  | 0R                   | 0R                  | 0R                  | 12K                 |
| RI57     | -                    | 47R                  | 47R                 | 47R                 | -                   |
| RI58     | 1K                   | 1K                   | 1K                  | 1K                  | -                   |
| RI60     | 3K9                  | 3K9                  | -                   | -                   | 3K9                 |
| RI61     | 2K7                  | 2K7                  | -                   | -                   | 2K7                 |
| RI62     | 2K7                  | 2K7                  | -                   | -                   | 2K7                 |
| RI63     | 2K7                  | 22K                  | -                   | -                   | 2K7                 |
| RI64     | 150K                 | 150K                 | -                   | -                   | 150K                |
| LI20     | DTC144EK             | -                    | -                   | -                   | DTC144EK            |
| LI21     | DTC144EK             | -                    | -                   | -                   | DTC144EK            |
| LI22     | DTC144EK             | DTC144EK             | -                   | -                   | DTC144EK            |
| LI25     | -                    | BC548B               | BC548B              | BC548B              | DTC144EK            |
| LI60     | BC848B               | BC848B               | -                   | -                   | BC848B              |
| CI15     | 101F                 | -                    | -                   | -                   | 101F                |
| CI17     | 100PF                | 100PF                | -                   | -                   | 100PF               |
| CI27     | 220PF                | -                    | -                   | -                   | 220PF               |
| CI38     | 1N1                  | -                    | -                   | -                   | 1N1                 |
| JI11     | 0R                   | -                    | -                   | -                   | 0R                  |
| JI13     | 0R                   | -                    | -                   | -                   | 0R                  |
| LI11     | 0R                   | 0R                   | -                   | -                   | 0R                  |
| RI28     | 1K5                  | -                    | -                   | -                   | 1K5                 |
| RI29     | 3K9                  | -                    | -                   | -                   | 3K9                 |
| RI44     | 1K                   | 1K                   | -                   | -                   | 1K                  |
| RI51     | 10K                  | -                    | -                   | -                   | 10K                 |
| RI66     | 100R                 | 100R                 | -                   | -                   | 100R                |
| TR06     | BC848B               | -                    | -                   | -                   | BC848B              |

\* REFER TO PART LIST

**WARNING :** *Before servicing this chassis read the safety recommendations.*

**ATTENTION :** *Avant toute intervention sur ce châssis, lire les recommandations de sécurité.*

**ACHTUNG :** *Vor jedem Eingriff auf diesem Chassis, die Sicherheitsvorschriften lesen.*

**ATTENZIONE :** *Prima di intervenire sullo chassis, leggere le norme di sicurezza.*

**IMPORTANTE :** *Antes de cualquier intervención, leer las recomendaciones de seguridad.*

Do not disconnect modules when they are energized! Repairs on power supply section are to be carried out only with isolating transformer.

Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch Mode) qu'au travers d'un transformateur d'isolement. Module nicht bei eingeschaltetem Gerät entfernen ! Servicearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare i moduli quando sono alimentati! Intraprendere riparazioni sulla sezione alimentatore solo con trasformatore isolante.

No desconectar los módulos cuando están activados. Las reparaciones en la sección de alimentación de energía deben ser ejecutadas solamente con un transformador de separación.

 Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.

Le remplacement des éléments de sécurité (repérés avec le symbole ) par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.

Wenn Sicherheitsteile (mit dem Symbol ) gekennzeichnet) nicht durch Original - Ersatzteile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione degli elementi di sicurezza (marcati con il segno ) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio. In tal caso è "esclusa la responsabilità " del costruttore.

La sustitución de elementos de seguridad (marcados con el simbolo ) por componentes no homologados segun la norma CEI 65, provoca la no conformidad del aparato. En ese caso, el fabricante cesa de ser responsable.

Note : During measurements in the power supply unit, use the primary power unit ground (Emit. TP060).

Attention : Mesures dans le bloc alimentation. Utiliser la masse du bloc alimentation (Emit. TP060).

Achtung : Bei Messungen im Primärnetzteil. Primärnetzteilmasse verwenden (Emit. TP060).

Attentionze : Misure nell'alimentatore primario. Usare massa alimentazione primario (Emit. TP060).

Cuidado : Medida en el bloque de alimentación. Utilizar la masa del bloque de alimentación (Emit. TP060).

## MEASUREMENT CONDITIONS - CONDITIONS DE MESURES - MESSBEDINGUNGEN CONDIZIONI DI MISURA - CONDICIONES DE MEDIDAS

### RECEIVER :

Bar test pattern : PAL, I standard, 100% white.

- On UHF, input level 1 mV
- Via the scart socket, input level 1 Vpp

Colour, contrast and brightness at mid-position, sound at minimum.

Programme selected : PR 01.

DC voltages measured between the point and earth using a digital voltmeter.

### RECEPTEUR :

Mire de barres : SECAM, Norm L, Blanc 100%.

- En UHF, niveau d'entrée 1 mV
- Par la prise Péritélévision, niveau d'entrée 1Vcc.

Couleur, contraste, lumière à mi-course, son minimum.

Programme affecté PR 01.

Tensions continues relevées par rapport à la masse avec un voltmètre numérique.

### EMPFÄNGER :

Farbbalken : PAL, Norm G, Weiss 100%

- Bei UHF Eingangspegel 1 mV.
- Über die Scartbuchse : Eingangspegel 1 Vss.

Farbe, Kontrast, Helligkeit in der Mitte des Bereichs, Ton auf Minimum.

Zugeordnetes Programm PR 01.

Gleichspannungen mit einem digitalen Voltmeter zur Masse gemessen.

### RICEVITORE :

Monoscopio per barre : PAL, norma G. bianco 100%.

- In UHF, livello d'entrata 1 mV,
- Per la presa SCART, livello d'entrata 1 Vcc.

Colore, Contrasto, Luce a metà corsa, Suono minimo.

Programma designato PR 01.

Tensioni continue rilevate rispetto alla massa con un voltmetro numerico.

### RECEPTOR :

Mira de barras : PAL, norma G, blanco 100%.

- En UHF, nivel de entrada 1 mV,
- Por la toma Peritelevision, nivel de entrada 1 Vpp.

Color, Contraste, luz a mitad de carrera, Sonido minimo.

Programa afectado PR 01.

Tensiones continuas marcadas en relacion a la masa con un voltmetro digital.

PARTS LIST  
LISTE PIECES DETACHEES  
ERSATZTEILLISTE  
LISTA PARTI DI RICAMBIO  
LISTA DE PIEZAS DE REPUESTO

FERGUSON  
M5115UT  
Chassis TX807

## MODULES

MAIN T807V26C705030



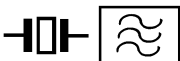
|      |                        |            |
|------|------------------------|------------|
| FL01 | RXE017                 | △ 10529690 |
| IA21 | TDA7253                | 20203120   |
| IF01 | TDA9302H               | 20819860   |
| II01 | KIA78L09BP             | 20835320   |
| IP50 | TL431                  | 15069010   |
| IR01 | TMP47C1637N TX807-VT11 | 20925200   |
| IR02 | ST24W04                | 20659470   |
| IV01 | TDA8842                | 20751980   |
| IX01 | STV5348D               | 20765620   |



|                                          |                     |            |
|------------------------------------------|---------------------|------------|
| IP01                                     | TLP621 GR(D4-LF2 T) | △ 20827900 |
| TA21, TI35, TR01, TX02                   | BC548B              | 16000930   |
| TA22                                     | BC557B              | 16001060   |
| TA23, TL01                               | BC337-40            | 45001466   |
| TH01, TP22, 52, TR05, 08                 | BC547B              | 16000890   |
| TH02, 03, 04                             | BC857C SMD          | 50854389   |
| TI11                                     | MMBTH10L SMD        | 16006500   |
| TI31, 33, 34, TR04, 09, TV01, 02, 04, 06 | BC847B SMD          | 11070770   |
| TL02                                     | S2000N/BU508A       | 20578720   |
| TL03, TT81                               | BC327-40            | 16000450   |
| TL50                                     | 2SC2236Y            | 16000220   |
| TP20                                     | STP3NA80FI          | △ 20818740 |
| TP23                                     | BC327-25            | 16000440   |
| TP25, TX01, 03                           | BC558B              | 16001110   |
| TR02                                     | BCR185 SMD          | 16006900   |
| TR03                                     | BC848C SMD          | 20438166   |
| TR07                                     | 2SA1020Y            | 16003740   |
| TR10                                     | BC547C              | 16000900   |
| TT51, 61, 71                             | BF422               | 16003090   |
| TT52, 62, 72                             | 2SC2482N            | 16003760   |
| TT53, 63, 73                             | BF423               | 16003110   |
| TV03, 05, 07                             | RN2410              | 20824180   |
| TV08                                     | RN1409 SMD          | 20688820   |



|                                                                                                    |                     |          |
|----------------------------------------------------------------------------------------------------|---------------------|----------|
| DA01, DK05, DL60, 63, DP37, 38, DR03, 04, DT51, 61, 71, DV01, 04, 05, 06, 09, 10, 11, DX01, 02, 03 | 1N4148              | 44009209 |
| DA02, DT82                                                                                         | BZX55B9V1           | 70438220 |
| DF01, DL05, 06, 15, 20, 45, 47, 50, DP25, 90                                                       | RGPI0G              | 10459090 |
| DH01                                                                                               | ZTK33A              | 20494820 |
| DK01                                                                                               | MV5491A LED         | 10036730 |
| DK04                                                                                               | BZX55C5V6/ZPD5V6    | 44025401 |
| DL01                                                                                               | 1N4001              | 16008160 |
| DL04                                                                                               | BY228               | 10406470 |
| DL21, DP26                                                                                         | BAV21               | 44044407 |
| DL25, DP27, 40                                                                                     | BZX55C27            | 60447870 |
| DL51                                                                                               | 1N5233B             | 20264850 |
| DL62                                                                                               | ZPD4, 7/BZX55C4V7   | 20475400 |
| DP01                                                                                               | RS205L-K105         | 20807220 |
| DP21                                                                                               | BZX55B15/ZPD15 2%   | 80444020 |
| DP23, 30                                                                                           | ZPD8, 2             | 44021504 |
| DP57                                                                                               | BZX55C6V8           | 50890650 |
| DP80                                                                                               | BYW76               | 16009120 |
| DR02                                                                                               | BZX55B5V1/ZPD5V1 2% | 44035702 |
| DV03                                                                                               | MUR115/BYW100-150   | 44073604 |
| DX05                                                                                               | BZX55C3V3           | 30948790 |



|      |               |          |
|------|---------------|----------|
| QC01 | 4M433619HZ    | 10087710 |
| QC02 | 3M579545HZ    | 10087720 |
| QI30 | OFWJ1952M FOS | 20232080 |
| QI32 | 6M0HZ         | 48039700 |
| QI34 | 6M0HZ         | 48042300 |
| QR01 | 6M0HZ         | 20767900 |
| QX01 | 13M875HZ      | 10253990 |



|      |        |          |
|------|--------|----------|
| LI30 | 77M8HZ | 20862330 |
|------|--------|----------|



|                          |                    |            |
|--------------------------|--------------------|------------|
| RA13                     | 4R7 OHM 5% 0,25W   | △ 35032200 |
| RL12, 16, RP90           | 0R22 OHM 5% 0,50W  | △ 10305450 |
| RL14                     | 0R47 OHM 5% 1W     | △ 15042720 |
| RL20                     | 47R0 OHM 5% 0,30W  | △ 13000690 |
| RL45                     | 0R1 OHM 10% 0,40W  | △ 15022510 |
| RL51                     | 1R8 OHM 5% 0,30W   | △ 15009780 |
| RP01                     | 5R1 OHM 10% 2,5W   | 10547070   |
| RP02                     | 18R0 OHM 230V PTC  | △ 10509980 |
| RP15                     | 10M0 OHM 5% 0,70W  | △ 10074320 |
| RP20                     | 1R0 OHM 5% 2,50W   | 10383240   |
| RP56, 58                 | 41K2 OHM 1% 0,25W  | 50883790   |
| RR04                     | 8R2 OHM 5% 0,25W   | △ 15010150 |
| RR72                     | 200R0 OHM 1% 0,25W | 80437540   |
| RT55, 58, 65, 68, 75, 78 | 1K0 OHM 5% 0,30W   | △ 15009700 |
| RT92                     | 1K5 OHM 5% 0,50W   | 10121880   |



|              |                 |            |
|--------------|-----------------|------------|
| CL04         | 6N6F 1K6V       | 80304700   |
| CL05         | 390N0F 10% 250V | 43171400   |
| CL10         | 680P0F 10% 3K0V | 20248410   |
| CL16, 40, 50 | 330P0F 10% 1K0V | 14030320   |
| CL20         | 22U0F 20% 250V  | △ 13071070 |
| CL33         | 1N0F 20% 1K0V   | 20388780   |
| CP01, 02     | 100N0F 20% 275V | △ 10331520 |
| CP04         | 10N0F 20% 400V  | 14033040   |
| CP05, 06     | 4N7F 1K0V       | 10058740   |
| CP08         | 100U0F 385V     | 30662900   |
| CP09         | 1N5F 10% 1K0V   | 20338740   |
| CP15         | 1N0F 20% 400V   | △ 20822690 |
| CP82         | 680P0F 10% 1K0V | 20505600   |
| CP91         | 2N2F 10% 250V   | △ 20833060 |
| CT90         | 2N2F 2K0V       | 14036020   |



|      |         |            |
|------|---------|------------|
| LL01 | DRIVER  | 20814520   |
| LL03 |         | △ 80367500 |
| LL05 | DSTLH27 | △ 20835940 |
| LP02 |         | △ 10395160 |
| LP03 | SMT17   | △ 10528770 |

R : RECYCLED PART  
: PIECE RECYCLEE  
: AUSTAUSCHTEILE  
: RICAMBIO RICICLATO  
: MODULO REPROCESSADO

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**OTHER PARTS  
AUTRES PIECES  
SONSTIGE TEILE  
ALTRE PARTI  
OTRAS PIEZAS**

|                      |                                                                                                                                      |          |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>BE01</b>          | SCART SOCKET<br>PRISE PERITEL<br>EURO-AV-BUCHSE<br>EUROPRESA NORMALIZZATA<br>EUROCONNECTOR                                           | 10362830 |
| <b>BE02</b>          | HEADPHONE SOCKET<br>PRISE CASQUE<br>KOPFHOERERBUCHSE<br>PRESA JACK<br>TOMA JACK                                                      | 20345310 |
| <b>BE03</b>          | CINCH SOCKET<br>PRISE CINCH<br>CINCH-BUCHSE<br>PRESA CINCH<br>TOMA CINCH                                                             | 11007219 |
| <b>BE04</b>          | HEADPHONE SOCKET<br>PRISE CASQUE<br>KOPFHOERERBUCHSE<br>PRESA JACK<br>TOMA JACK                                                      | 30909940 |
| <b>BT02</b>          | CATHODE RAY TUBE SOCKET $\Delta$<br>SUPPORT TUBE CATHODIQUE<br>BILDROEHRENFASSUNG<br>SUPPORTO TUBO CATODICO<br>SOPORTE T.R.C         | 20631370 |
| <b>FP01</b>          | 1A6T TIME-LAG FUSE $\Delta$<br>1A6T FUSIBLE TEMPORISE<br>1A6T SICHERUNG<br>1A6T FUSIBILE TEMPORIZZATO<br>1A6T FUSIBLE TEMPORIZADO    | 48064700 |
| <b>NH01</b>          | CTT5045 UHF/VHF TUNER R<br>CTT5045 TETE UHF/VHF<br>CTT5045 UHF/VHF TUNER<br>CTT5045 TUNER UHF/VHF<br>CTT5045 SINTONIZADOR<br>UHF/VHF | 20765490 |
| <b>SK01,02,03,04</b> | MICROSWITCH<br>MICRO CONTACTEUR<br>MIKROSCHALTER<br>MICROINTERRUTTORE<br>MICROCONTACTOR                                              | 30011100 |
| <b>SP05</b>          | ON/OFF SWITCH $\Delta$<br>CONTACTEUR MARCHE/ARRET<br>EIN-AUS SCHALTER<br>CONTATTATORE ACCESO/SPENTO<br>CONTACTOR MARCHA/PARADA       | 20612390 |

**EQUIPMENT/PRESENTATION  
EQUIPEMENT/PRESENTATION  
AUSSTATTUNG/GEHAEUSE  
PARTI VARIE  
EQUIPO/PRESENTACION**

|                                                                                                                                                        |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| FRONT PANEL<br>FACADE<br>FRONTPLATTE<br>PANNELLO FRONTALE<br>PANEL FRONTAL                                                                             | 25314870 |
| LOGO FERGUSON<br>LOGO FERGUSON<br>SCHRIFTZUG FERGUSON<br>MARCHIO FERGUSON<br>LOGOTIPO FERGUSON                                                         | 25295050 |
| 8R OHM 8W LOUDSPEAKER 50X90<br>8R OHM 8W HAUT PARLEUR 50X90<br>8R OHM 8W LAUTSPRECHER 50X90<br>8R OHM 8W ALTOPARLANTE 50X90<br>8R OHM 8W ALTAVOZ 50X90 | 10377680 |
| REAR PANEL $\Delta$<br>DOS<br>RUECKWAND<br>PANNELLO POSTERIORE<br>TAPA POSTERIOR                                                                       | 25310900 |
| POWER SUPPLY LEAD (UK) $\Delta$<br>CORDON D'ALIMENTATION (UK)<br>NETZKABEL (UK)<br>CAVO DI ALIMENTAZIONE (UK)<br>CABLE DE ALIMENTACION (UK)            | 20492600 |
| ON/OFF BUTTON<br>TOUCHE MARCHE/ARRET<br>EIN-AUS TASTE<br>TASTO ACCESSO/SPENTO<br>TECLA MARCHA/PARADA                                                   | 25314630 |
| BUTTON STRIP<br>BARRETTE DE TOUCHES<br>TASTENLEISTE<br>PIATTINA TASTI<br>PLACA DE TECLAS                                                               | 25317290 |
| A48EAX13X01 CATHODE RAY $\Delta$<br>A48EAX13X01 TUBE CATHODIQUE<br>A48EAX13X01 FARBBILDROEHRE<br>A48EAX13X01 TUBO CATODICO<br>A48EAX13X01 T.R.C        | 10543360 |
| DEGAUSSING COIL $\Delta$<br>BOBINE DE DEMAGNETISATION<br>ENTMAGNETISIERUNGSSPULE<br>BOBINA DI SMAGNETIZZAZIONE<br>BOBINA DE DESMANTACION               | 47320196 |
| F3092 REMOTE CONTROL<br>F3092 TELECOMMANDE<br>F3092 FERNBEDIENUNG<br>F3092 TELECOMANDO<br>F3092 TELEMANDO                                              | 20647490 |
| FOLDING BOX<br>EMBALLAGE CARTON<br>KARTON<br>IMBALLAGGIO CARTONE<br>EMBALAJE CARTON                                                                    | 25329710 |
| FITTING UPPER<br>CALE SUPERIEURE<br>POLSTER OBEN<br>Distanziatore superiore<br>CALZO SUPERIOR                                                          | 25312360 |
| FITTING DOWNER<br>CALE INFERIEURE<br>POLSTER UNTEN<br>Distanziatore inferiore<br>CALZO INFERIOR                                                        | 25312390 |

**INSTRUCTIONS  
NOTICES  
ANLEITUNGEN  
ISTRUZIONI  
MANUALE**

|                                                                                                                                                                                 |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| M5115UT PARTS LIST<br>M5115UT LISTE DE PIECES DETACHEES<br>M5115UT ERSATZTEILLISTE<br>M5115UT LISTA PARTI DI RICAMBIO<br>M5115UT LISTA DE PIEZAS DE REPUESTO                    | 35066010 |
| TX807 SERVICE MANUEL EUROPE<br>TX807 DOC TECHNIQUE EUROPE<br>TX807 TECHNISCHE DOKUMENTATION EUROPE<br>TX807 DOCUMENTAZIONE TECNICA EUROPE<br>TX807 DOCUMENTACION TECNICA EUROPE | 35058840 |
| M5115UT UM FERGUSON GB<br>M5115UT NU FERGUSON GB<br>M5115UT BA FERGUSON GB<br>M5115UT IU FERGUSON GB<br>M5115UT IU FERGUSON GB                                                  | 25335610 |

**M5115UT**

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**PARTS LIST**  
**LISTE PIECES DETACHEES**  
**ERSATZTEILLISTE**  
**LISTA PARTI DI RICAMBIO**  
**LISTA DE PIEZAS DE REPUESTO**

**THOMSON**  
**20DG15ES**  
**Chassis TX807C**

#### MODULES

**MAIN T807CF96C002011 10674920**



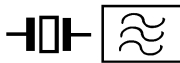
|              |                     |            |
|--------------|---------------------|------------|
| <b>GK001</b> | TSOP1333            | 25358570   |
| <b>IB001</b> | TDA6107Q/N2         | 10659660   |
| <b>IF001</b> | TDA9302H            | 20819860   |
| <b>IP050</b> | TLP621 GR(D4-LF2 T) | △ 20827900 |
| <b>IP090</b> | STV8130             | 10658850   |
| <b>IP095</b> | MC7805/ACT          | 46007400   |
| <b>IR001</b> | M22W04              | 10456150   |
| <b>IS001</b> | TDA7253             | 20203120   |
| <b>IV001</b> | TDA9351N1           | 10649480   |
| <b>TL035</b> | S2055N              | 20578760   |
| <b>ZP092</b> | MP315               | △ 10575090 |
| <b>ZP094</b> | MP32                | △ 25405650 |



|                                                                                                |              |          |
|------------------------------------------------------------------------------------------------|--------------|----------|
| <b>TI030</b>                                                                                   | DTC144EK SMD | 16007030 |
| <b>TL031,TP032,</b><br>053,054,061,<br>070, <b>TS002,004,</b><br>050,051, <b>TV020,</b><br>022 | BC846B SMD   | 16006260 |
| <b>TL032,TP022</b>                                                                             | BC337-40     | 45001466 |
| <b>TL050,TP025,</b><br>026,031,060,<br>080, <b>TV021</b>                                       | BC856B SMD   | 16006310 |
| <b>TL060</b>                                                                                   | RN2417 SMD   | 25423180 |
| <b>TL061,062</b>                                                                               | RN1409 SMD   | 20688820 |
| <b>TP020</b>                                                                                   | STP3NB90FP   | 25411640 |
| <b>TP058,072,081,</b><br><b>TR002</b>                                                          | BCR141 SMD   | 16006890 |
| <b>TP071,TR001</b>                                                                             | BCR185 SMD   | 16006900 |



|                                                                                                                                |                     |          |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|
| <b>DB030,031,050,</b><br>051,070,071,<br><b>DJ020,DP031,</b><br>032                                                            | BAV21               | 44044407 |
| <b>DF002,DL004,</b><br>005,015,030,<br>060, <b>DP022,033,</b><br>034,035,037,<br>040,057,058,<br>070,081, <b>DV070,</b><br>071 | 1N4148              | 44009209 |
| <b>DF010,DL011,</b><br>013,035, <b>DP095</b>                                                                                   | 1N4001              | 16008160 |
| <b>DH001</b>                                                                                                                   | BZX55C30            | 80444170 |
| <b>DI030</b>                                                                                                                   | BA782S              | 20542050 |
| <b>DL010,012,025,</b><br>040, <b>DP026</b>                                                                                     | RG10G               | 10459090 |
| <b>DL014</b>                                                                                                                   | BZX55B9V1           | 70438220 |
| <b>DP001,002,003,</b><br>004                                                                                                   | BYW27-1000          | 10455390 |
| <b>DP021,043</b>                                                                                                               | BZX55B16            | 11073430 |
| <b>DP023</b>                                                                                                                   | BZX55C7V5           | 80444150 |
| <b>DP027</b>                                                                                                                   | BZX55C27            | 60447870 |
| <b>DP030</b>                                                                                                                   | BZX55C11            | 11073670 |
| <b>DP080</b>                                                                                                                   | FUF4005/MUR160      | 16009580 |
| <b>DP090,092</b>                                                                                                               | MUR120              | 10564670 |
| <b>DR001</b>                                                                                                                   | BZX55B5V1/ZPD5V1 2% | 44035702 |
| <b>GE001</b>                                                                                                                   | LTL307/EE LED       | 16010330 |



|              |               |          |
|--------------|---------------|----------|
| <b>FI010</b> | 0FWK6270K FOS | 10503340 |
| <b>FI030</b> | 40M4HZ        | 10664720 |
| <b>FI050</b> | 5M5HZ         | 10658370 |
| <b>QV001</b> | 12M0HZ        | 25418130 |



|              |           |          |
|--------------|-----------|----------|
| <b>PP051</b> | 470R0 OHM | 10260350 |
|--------------|-----------|----------|



|                      |                     |            |
|----------------------|---------------------|------------|
| <b>RB001</b>         | 1K5 OHM 5% 0,50W    | 10121880   |
| <b>RB013</b>         | 10R0 OHM 10% 0,50W  | 15000160   |
| <b>RB031,051,071</b> | 560R0 OHM 10% 0,50W | 10257590   |
| <b>RF004,006</b>     | 1K5 OHM 1% 0,25W    | 80437630   |
| <b>RF007</b>         | 1R5 OHM 1% 0,70W    | 10451140   |
| <b>RF008</b>         | 2R2 OHM 5% 0,25W    | △ 15009870 |
| <b>RF010</b>         | 1R5 OHM 5% 0,25W    | △ 13063950 |
| <b>RL010</b>         | 0R1 OHM 10% 0,40W   | △ 15022510 |
| <b>RL012</b>         | 0R22 OHM 5% 0,50W   | △ 10305450 |
| <b>RL040</b>         | 47R0 OHM 5% 0,35W   | △ 20923340 |
| <b>RL090</b>         | 86K6 OHM 1% 0,25W   | 15021680   |
| <b>RP002</b>         | 18R0 OHM 230V PTC   | △ 10509980 |
| <b>RP008</b>         | 5R1 OHM 10% 2,50W   | 10472390   |
| <b>RP020</b>         | 1R0 OHM 5% 2,50W    | 10383240   |
| <b>RP050</b>         | 10M0 OHM 5% 0,70W   | △ 10074320 |
| <b>RP054</b>         | 68K1 OHM 1% 0,70W   | 10147740   |
| <b>RS028</b>         | 18R0 OHM 5% 0,30W   | △ 15009660 |
| <b>RS040</b>         | 4R7 OHM 5% 0,35W    | △ 10226310 |
| <b>RS056</b>         | 0R47 OHM 10% 0,40W  | △ 15022650 |



|                                           |                 |            |
|-------------------------------------------|-----------------|------------|
| <b>CB001</b>                              | 10N0F 3K0V      | 14036450   |
| <b>CB004</b>                              | 47N0F 5% 250V   | 40433080   |
| <b>CL003</b>                              | 10N0F 5% 400V   | 10588870   |
| <b>CL010,012,040,</b><br><b>CP089,093</b> | 330P0F 20% 1K0V | 14035270   |
| <b>CL024</b>                              | 440N0F 5% 250V  | 43352100   |
| <b>CP001</b>                              | 100N0F 20% 275V | △ 10331520 |
| <b>CP003</b>                              | 68N0F 20% 250V  | 10256210   |
| <b>CP004</b>                              | 1N5F 10% 1K0V   | 20338740   |
| <b>CP005,006</b>                          | 4N7F 1K0V       | 10058740   |
| <b>CP009</b>                              | 3N3F 20% 1K6V   | 10607950   |
| <b>CP050</b>                              | 2N2F 20% 400V   | △ 10344870 |
| <b>CP082</b>                              | 1N0F 10% 500V   | 10546570   |

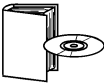


|              |          |            |
|--------------|----------|------------|
| <b>LL005</b> | DSTLH27F | △ 10658470 |
| <b>LL032</b> | DRIVER   | 20936440   |
| <b>LP002</b> |          | △ 10654720 |
| <b>LP003</b> | SMT17    | △ 10674880 |

**R : RECYCLED PART**  
**: PIECE RECYCLEE**  
**: AUSTAUSCHTEILE**  
**: RICAMBIO RICICLATO**  
**: MODULO REPROCESADO**

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| OTHER PARTS<br>AUTRES PIECES<br>SONSTIGE TEILE<br>ALTRE PARTI<br>OTRAS PIEZAS |                                                                                                                                    |          | EQUIPMENT/PRESENTATION<br>EQUIPEMENT/PRESENTATION<br>AUSSTATTUNG/GEHAEUSE<br>PARTI VARIE<br>EQUIPO/PRESENTACION                                                 |          |  |  |  |  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--|------------------------------------------------------------------------------------|--|--|
| BB005                                                                         | CATHODE RAY TUBE SOCKET<br>SUPPORT TUBE CATHODIQUE<br>BILDROEHRENFASSUNG<br>SUPPORTO TUBO CATODICO<br>SOPORTE T.R.C                | 80298800 | FRONT PANEL AND BUTTON GY25TH<br>FACADE ET TOUCHES GY25TH<br>FRONTPLATTE UND TASTE GY25TH<br>PANNELLO FRONTALE E TASTO GY25TH<br>PANEL FRONTAL Y TECLA GY25TH   | 25459230 |  | 20DG15ES PARTS LIST 35125520                                                       |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | 20DG15ES LISTE DE PIECES DETACHEES                                                 |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | 20DG15ES ERSATZTEILLISTE                                                           |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | 20DG15ES LISTA PARTI DI RICAMBIO                                                   |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | 20DG15ES LISTA DE PIEZAS DE REPUESTO                                               |  |  |
| BJ005                                                                         | CINCH SOCKET<br>PRISE CINCH<br>CINCH-BUCHSE<br>PRESA CINCH<br>TOMA CINCH                                                           | 11007219 | REAR PANEL GY26TH<br>DOS GY26TH<br>RUECKWAND GY26TH<br>PANNELLO POSTERIORE GY26TH<br>TAPA POSTERIOR GY26TH                                                      | 25459240 |  | TX807C/CS SERVICE MANUAL 35110300                                                  |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS DOC TECHNIQUE                                                            |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS TECHNISCHE DOKUMENTATION                                                 |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS DOCUMENTAZIONE TECNICA                                                   |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS DOCUMENTACION TECNICA                                                    |  |  |
| BJ006                                                                         | CINCH SOCKET<br>PRISE CINCH<br>CINCH-BUCHSE<br>PRESA CINCH<br>TOMA CINCH                                                           | 30909940 | INFRARED WINDOW<br>GLACE INFRAROUGE<br>INFRAROTOT FENSTER<br>VETRO INFRAROSSO<br>CRISTAL INFRARROJO                                                             | 25403400 |  | CDROM TX807 VERSION 2 35110290                                                     |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | CDROM TX807 VERSION 2                                                              |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | CDROM TX807 VERSION 2                                                              |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | CDROM TX807 VERSION 2                                                              |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | CDROM TX807 VERSION 2                                                              |  |  |
| BQ012                                                                         | HEADPHONE SOCKET<br>PRISE CASQUE<br>KOPFHUERERBUCHSE<br>PRESA JACK<br>TOMA JACK                                                    | 20345310 | LOGO THOMSON<br>LOGO THOMSON<br>SCHRIFZUG THOMSON<br>MARCHIO THOMSON<br>LOGOTIPO THOMSON                                                                        | 25381430 |  | TX807C/CS UM D/F/I/GB/GR/DK/NL/S/E/P 50011430                                      |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS NU D/F/I/GB/GR/DK/NL/S/E/P                                               |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS BA D/F/I/GB/GR/DK/NL/S/E/P                                               |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS IU D/F/I/GB/GR/DK/NL/S/E/P                                               |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  | TX807C/CS IU D/F/I/GB/GR/DK/NL/S/E/P                                               |  |  |
| BV001                                                                         | SCART SOCKET<br>PRISE PERITEL<br>EURO-AV-BUCHSE<br>EUROPRESA NORMALIZZATA<br>EUROCONECTOR                                          | 10362830 | 16R OHM 10W LOUDSPEAKER 50X90<br>16R OHM 10W HAUT PARLEUR 50X90<br>16R OHM 10W LAUSPRECHER 50X90<br>16R OHM 10W ALTOPARLANTE 50X90<br>16R OHM 10W ALTAVOZ 50X90 | 10316960 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
| FP001                                                                         | 1A6T TIME-LAG FUSE<br>1A6T FUSIBLE TEMPORISE<br>1A6T SICHERUNG<br>1A6T FUSIBILE TEMPORIZZATO<br>1A6T FUSIBLE TEMPORIZADO           | 48064700 | ON/OFF BUTTON GY25TH<br>TOUCHE MARCHE/ARRET GY25TH<br>EIN-AUS TASTE GY25TH<br>TASTO ACCESO/SPENTO GY25TH<br>TECLA MARCHA/PARADA GY25TH                          | 25459250 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
| NH001                                                                         | CTT5010 UHF/VHF TUNER<br>CTT5010 TETE UHF/VHF<br>CTT5010 UHF/VHF TUNER<br>CTT5010 TUNER UHF/VHF<br>CTT5010 SINTONIZADOR<br>UHF/VHF | 20812280 | POWER SUPPLY LEAD<br>CORDON D'ALIMENTATION<br>NETZKABEL<br>CAVO DI ALIMENTAZIONE<br>CABLE DE ALIMENTACION                                                       | 10260830 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
| SK001,002,003,004                                                             | MICROSWITCH<br>MICRO CONTACTEUR<br>MIKROSCHALTER<br>MICROINTERRUTTORE<br>MICROCONTACTOR                                            | 30011100 | A48EAX13X01 CATHODE RAY TUBE<br>A48EAX13X01 TUBE CATHODIQUE<br>A48EAX13X01 FARBBILDROEHRE<br>A48EAX13X01 TUBO CATODICO<br>A48EAX13X01 T.R.C                     | 10543360 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
| SP005                                                                         | ON/OFF SWITCH<br>CONTACTEUR MARCHE/ARRET<br>EIN-AUS SCHALTER<br>CONTATTORE ACCESO/SPENTO<br>CONTACTOR MAECHA/PARADA                | 25442860 | DEGAUSSING COIL<br>BOBINE DE DEMAGNETISATION<br>ENTMAGNETISIERUNGSSPULE<br>BOBINA DI SMAGNETIZZAZIONE<br>BOBINA DE DESIMANTACION                                | 47320196 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          | RCT100 REMOTE CONTROL<br>RCT100 TELECOMMANDE<br>RCT100 FERNBEDIENUNG<br>RCT100 TELECOMANDO<br>RCT100 TELEMANDO                                                  | 10546340 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          | FOLDING BOX<br>EMBALLAGE CARTON<br>KARTON<br>IMBALLAGGIO CARTONE<br>EMBALAJE CARTON                                                                             | 25380830 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          | FITTING UPPER<br>CALE SUPERIEURE<br>POLSTER OBEN<br>DISTANZIATORE SUPERIORE<br>CALZO SUPERIOR                                                                   | 25403380 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          | FITTING DOWNER<br>CALE INFERIORE<br>POLSTER UNTEN<br>DISTANZIATORE INFERIORE<br>CAZO INFERIOR                                                                   | 25403370 |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
|                                                                               |                                                                                                                                    |          |                                                                                                                                                                 |          |  |                                                                                    |  |  |
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20DG15ES

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#### PARTS LIST

#### LISTE PIECES DETACHEES

#### ERSATZTEILLISTE

#### LISTA PARTI DI RICAMBIO

#### LISTA DE PIEZAS DE REPUESTO

## THOMSON

## 14MG15ET

## Chassis TX807C

### MODULES

MAIN T807CF911002010 10675370



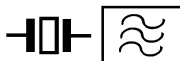
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| GK001 | TSOP1333            | 25358570   |
| IB001 | TDA6107Q/N2         | 10659660   |
| IF001 | TDA9302H            | 20819860   |
| IP050 | TLP621 GR(D4-LF2 T) | △ 20827900 |
| IP090 | STV8130             | 10658850   |
| IP095 | MC7805/ACT          | 46007400   |
| IR001 | M22W04              | 10456150   |
| IS001 | TDA7253             | 20203120   |
| IV001 | TDA9351N1           | 10649480   |
| TL035 | S2055N              | 20578760   |
| ZP094 | MP32                | △ 25405650 |



|                |              |          |
|----------------|--------------|----------|
| TI030          | DTC144EK SMD | 16007030 |
| TL031,TP032,   | BC846B SMD   | 16006260 |
| 053,054,061,   |              |          |
| 070,TS002,004, |              |          |
| 050,051,TV020, |              |          |
| 022            |              |          |
| TL032,TP022    | BC337-40     | 45001466 |
| TL050,TP025,   | BC856B SMD   | 16006310 |
| 026,031,060,   |              |          |
| 080,TV021      |              |          |
| TL060          | RN2417 SMD   | 25423180 |
| TL061,062      | RN1409 SMD   | 20688820 |
| TP020          | STP3NB90FP   | 25411640 |
| TP058,072,081, | BCR141 SMD   | 16006890 |
| TR002          |              |          |
| TP071,TR001    | BCR185 SMD   | 16006900 |



|                |                     |          |
|----------------|---------------------|----------|
| DB004          | 1N4004              | 44009009 |
| DB030,031,050, | BAV21               | 44044407 |
| 051,070,071,   |                     |          |
| DJ020,DP031,   |                     |          |
| 032            |                     |          |
| DF002,DL004,   | 1N4148              | 44009209 |
| 005,015,030,   |                     |          |
| 060,DP022,033, |                     |          |
| 034,035,037,   |                     |          |
| 040,057,058,   |                     |          |
| 070,081,DV070, |                     |          |
| 071            |                     |          |
| DF010,DL011,   | 1N4001              | 16008160 |
| 013,035,DP095  |                     |          |
| DH001          | BZX55C30            | 80444170 |
| DI030          | BA782S              | 20542050 |
| DL010,012,025, | RGP10G              | 10459090 |
| 040,DP026,090  |                     |          |
| DL014          | BZX55B9V1           | 70438220 |
| DP001,002,003, | BYW27-1000          | 10455390 |
| 004            |                     |          |
| DP021,043      | BZX55B16            | 11073430 |
| DP023          | BZX55C7V5           | 80444150 |
| DP027          | BZX55C27            | 60447870 |
| DP030          | BZX55C11            | 11073670 |
| DP080          | FUF4005/MUR160      | 16009580 |
| DP092          | MUR120              | 10564670 |
| DR001          | BZX55B5V1/ZPD5V1 2% | 44035702 |
| GE001          | LTL307/EE LED       | 16010330 |



|       |               |          |
|-------|---------------|----------|
| FI010 | 0FWK6270K FOS | 10503340 |
| FI030 | 40M4HZ        | 10664720 |
| FI050 | 5M5HZ         | 10658370 |
| QV001 | 12M0HZ        | 25418130 |



|       |           |          |
|-------|-----------|----------|
| PP051 | 470R0 OHM | 10260350 |
|-------|-----------|----------|



|                |                     |            |
|----------------|---------------------|------------|
| RB001,004      | 1K5 OHM 5% 0,50W    | 10121880   |
| RB013          | 10R0 OHM 10% 0,50W  | 15000160   |
| RB031,051,071  | 560R0 OHM 10% 0,50W | 10257590   |
| RB033,052,073, | 100R0 OHM 5% 0,25W  | 30943330   |
| RL033,RV005,   |                     |            |
| 006,010,011,   |                     |            |
| 012,014,019    |                     |            |
| RF004,006      | 1K5 OHM 1% 0,25W    | 80437630   |
| RF007          | 1R82 OHM 1% 0,70W   | 10451420   |
| RF008          | 2R2 OHM 5% 0,25W    | △ 15009870 |
| RF010          | 1R5 OHM 5% 0,25W    | △ 13063950 |
| RL010          | 0R1 OHM 10% 0,40W   | △ 15022510 |
| RL012          | 0R22 OHM 5% 0,50W   | △ 10305450 |
| RL040          | 47R0 OHM 5% 0,35W   | △ 20923340 |
| RP002          | 18R0 OHM 220V PTC   | △ 41398800 |
| RP008          | 5R1 OHM 10% 2,50W   | 10472390   |
| RP020          | 1R0 OHM 5% 2,50W    | 10383240   |
| RP050          | 10M0 OHM 5% 0,70W   | △ 10074320 |
| RP054          | 68K1 OHM 1% 0,70W   | 10147740   |
| RS028          | 18R0 OHM 5% 0,30W   | △ 15009660 |
| RS040          | 4R7 OHM 5% 0,35W    | △ 10226310 |
| RS056          | 0R47 OHM 10% 0,40W  | △ 15022650 |



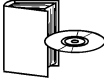
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|----------------|-----------------|------------|
| CB001          | 10N0F 3K0V      | 14036450   |
| CL003          | 10N0F 5% 400V   | 10588870   |
| CL010,012,040, | 330P0F 20% 1K0V | 14035270   |
| CP089,093      |                 |            |
| CL021          | 6N6F 1K6V       | 80304700   |
| CL022          | 470P0F 10% 2K0V | 25392030   |
| CL024          | 440N0F 5% 250V  | 43352100   |
| CP001          | 100N0F 20% 275V | △ 40404090 |
| CP003          | 68N0F 20% 250V  | 10256210   |
| CP004          | 1N5F 10% 1K0V   | 20338740   |
| CP005,006      | 4N7F 1K0V       | 10058740   |
| CP008          | 68U0F 20% 400V  | 25414980   |
| CP009          | 3N3F 20% 1K6V   | 10607950   |
| CP050          | 2N2F 20% 400V   | △ 10344870 |
| CP082          | 1N0F 10% 500V   | 10546570   |

R : RECYCLED PART  
: PIECE RECYCLEE  
: AUSTAUSCHTEILE  
: RICAMBIO RICICLATO  
: MODULO REPROCESSADO

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|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|                                  |                                                                                                                                    |            | <b>EQUIPMENT/PRESENTATION</b><br><b>EQUIPEMENT/PRESENTATION</b><br><b>AUSSTATTUNG/GEHAEUSE</b><br><b>PARTI VARIE</b><br><b>EQUIPO/PRESENTACION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| LL005                                                                                                            | DSTLH27F                                                                                                                           | △ 10658340 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| LL032                                                                                                            | DRIVER                                                                                                                             | 20936440   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| LP002                                                                                                            |                                                                                                                                    | △ 10654720 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| LP003                                                                                                            | SMT17                                                                                                                              | △ 10674870 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| <b>OTHER PARTS</b><br><b>AUTRES PIECES</b><br><b>SONSTIGE TEILE</b><br><b>ALTRE PARTI</b><br><b>OTRAS PIEZAS</b> |                                                                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| BB006                                                                                                            | CATHODE RAY TUBE SOCKET<br>SUPPORT TUBE CATHODIQUE<br>BILDROEHRENFASSUNG<br>SUPPORTO CATODICO<br>SOPORTE T.R.C                     | △ 10653850 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| BQ012                                                                                                            | HEADPHONE SOCKET<br>PRISE CASQUE<br>KOPFHÖRERBUCHSE<br>PRESA JACK<br>TOMA JACK                                                     | 20345310   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| BV001                                                                                                            | SCART SOCKET<br>PRISE PERITEL<br>EURO-AV-BUCHSE<br>EUROPRESA NORMALIZZATA<br>EUROCONNECTOR                                         | 10362830   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| FP001                                                                                                            | 1A6T TIME-LAG FUSE<br>1A6T FUSIBLE TEMPORISE<br>1A6T SICHERUNG<br>1A6T FUSIBILE TEMPORIZZATO<br>1A6T FUSIBLE TEMPORIZADO           | △ 48064700 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| IR001                                                                                                            | IC SUPPORT 2X4<br>SUPPORT CI 2X4<br>IC-FASSUNG 2X4<br>SUPPORTO CI 2X4<br>SOPORTE CI 2X4                                            | 67449100   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| NH001                                                                                                            | CTT5010 UHF/VHF TUNER<br>CTT5010 TETE UHF/VHF<br>CTT5010 UHF/VHF TUNER<br>CTT5010 TUNER UHF/VHF<br>CTT5010 SINTONIZADOR<br>UHF/VHF | 20812280   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| SK001,002,003,004                                                                                                | MICROSWITCH<br>MICRO CONTACTEUR<br>MIKROSCHALTER<br>MICROINTERRUTTORE<br>MICROCONTACTOR                                            | 30011100   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| SP005                                                                                                            | ON/OFF SWITCH<br>CONTACTEUR MARCHE/ARRET<br>EIN-AUS SCHALTER<br>CONTATTORE ACCESSO/SPENTO<br>CONTACTOR MAECHA/PARADA               | △ 25442860 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
|                                                                                                                  |                                                                                                                                    |            | A34AGT13X38 CATHODE RAY TUBE<br>A34AGT13X38 TUBE CATHODIQUE<br>A34AGT13X38 FARBBILDROEHRE<br>A34AGT13X38 TUBO CATODICO<br>A34AGT13X38 T.R.C<br>DEGAUSSING COIL<br>BOBINE DE DEMAGNETISATION<br>ENTMAGNETISIERUNGSSPULE<br>BOBINA DI SMAGNETIZZAZIONE<br>BOBINA DE DESMANTACION<br>POWER SUPPLY LEAD<br>CORDON D'ALIMENTATION<br>NETZKABEL<br>CAVO DI ALIMENTAZIONE<br>CABLE DE ALIMENTACION<br>8R OHM 3W LOUDSPEAKER 40X70<br>8R OHM 3W HAUT PARLEUR 40X70<br>8R OHM 3W LAUTSPRECHER 40X70<br>8R OHM 3W ALTOPARLANTE 40X70<br>8R OHM OHM 3W ALTAVOZ 40X70<br>RCT100 REMOTE CONTROL<br>RCT100 TELECOMMANDE<br>RCT100 FERNBEDIENUNG<br>RCT100 TELECOMANDO<br>RCT100 TELEMANDO<br>TELESCOPIC ANTENNA<br>ANTENNE TELESCOPIQUE<br>TELESKOPANTENNE<br>ANTENNA TELESCOPICA<br>ANTENA TELESCOPICA<br>FRONT PANEL GY20TH<br>FACADE GY20TH<br>FRONTPLATTE GY20TH<br>PANNELLO FRONTALE GY20TH<br>PANEL FRONTAL GY20TH<br>REAR PANEL GY20TH<br>DOS GY20TH<br>RUECKWAND GY20TH<br>PANNELLO POSTERIORE GY20TH<br>TAPA POSTERIOR GY20TH<br>LED WINDOW<br>GLACE LED<br>LED FENSTER<br>VETRO LED<br>CRISTAL LED<br>INFRARED WINDOW<br>GLACE INFRAROUGE<br>INFRAROT FENSTER<br>VETRO INFRAROSSO<br>CRISTAL INFRARROJO<br>LOGO THOMSON<br>LOGO THOMSON<br>SCHRIFTZUG THOMSON<br>MARCHIO THOMSON<br>LOGOTIPO THOMSON<br>ON/OFF BUTTON GY20TH<br>TOUCHE MARCHE/ARRET GY20TH<br>EIN-AUS TASTE GY20TH<br>TASTO ACCESSO/SPENTO GY20TH<br>TECLA MARCHA/PARADA GY20TH |  |  | △ 20786290<br>△ 20613360<br>△ 10260830<br>20901550<br>10546340<br>5087882A<br>25412830<br>△ 25416570<br>25316500<br>25316490<br>25332060<br>25454880                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
|                                                                                                                  |                                                                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |
|                                                                                                                  |                                                                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  | 14MG15ET PARTS LIST<br>14MG15ET LISTE DE PIECES DETACHEES<br>14MG15ET ERSATZTEILLISTE<br>14MG15ET LISTA PARTI DI RICAMBIO<br>14MG15ET LISTA DE PIEZAS DE REPUESTO<br>TX807C/CS SERVICE MANUAL<br>TX807C/CS DOC TECHNIQUE<br>TX807C/CS TECHNISCHE DOKUMENTATION<br>TX807C/CS DOCUMENTAZIONE TECNICA<br>TX807C/CS DOCUMENTACION TECNICA<br>CDROM TX807 VERSION 2<br>CDROM TX807 VERSION 2<br>CDROM TX807 VERSION 2<br>CDROM TX807 VERSION 2<br>CDROM TX807 VERSION 2<br>TX807C/CS UM D/F/I/GB/GR/DK/NL/S/<br>E/P/CZ/H/PL/RU/SK<br>TX807C/CS NU D/F/I/GB/GR/DK/NL/S/<br>E/P/CZ/H/PL/RU/SK<br>TX807C/CS BA D/F/I/GB/GR/DK/NL/S/<br>E/P/CZ/H/PL/RU/SK<br>TX807C/CS IU D/F/I/GB/GR/DK/NL/S/<br>E/P/CZ/H/PL/RU/SK<br>TX807C/CS IU D/F/I/GB/GR/DK/NL/S/<br>E/P/CZ/H/PL/RU/SK |  |  |
|                                                                                                                  |                                                                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  | 25318340<br>25317390<br>25317410<br>25317400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |

14MG15ET

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#### PARTS LIST

#### LISTE PIECES DETACHEES

#### ERSATZTEILLISTE

#### LISTA PARTI DI RICAMBIO

#### LISTA DE PIEZAS DE REPUESTO

## FERGUSON

## T7017U

## Chassis TX807CS

### MODULES

**MAIN** T807CF5C3022043 **10684610**  
**EWM** EWM80050 **10679310**  
**VSM** SUB VSM80000 **10705270**



**GK101** TSOP1333 25358570  
**IB001** TDA6107Q/N2 10659660  
**IF001** TDA8177 15053440  
**IL101** LM324AN 20679790  
**IP050** TLP621 GR(D4-LF2 T)  $\Delta$  20827900  
**IP090** STV8130 10658850  
**IP095** MC7805/ACT 46007400  
**IR001** M22W04 10456150  
**IS001** TDA7263 10281150  
**IS100** MSP3415D-PO 10648130  
**IV001** TDA9554PS/N1/1/0274 10649490  
**ZP092** MP315  $\Delta$  10575090  
**ZP094** MP32  $\Delta$  25405650



**TI030,045** DTC144EK SMD 16007030  
**TL031,TP032,** BC846B SMD 16006260  
 053,054,061,  
 070,TS050,100,  
 130,TV020,022  
**TL032,TP022** BC337-40 45001466  
**TL035** S2055N 20578760  
**TL050,TP025,** BC856B SMD 16006310  
 026,031,060,  
 080,TV021  
**TL060** RN2417 SMD 25423180  
**TL061,062** RN1409 SMD 20688820  
**TL101** IRF630FP 25453960  
**TP020** STP6NB90FP 25460310  
**TP058,072,081,** BCR141 SMD 16006890  
**TR002**  
**TP071,TR001** BCR185 SMD 16006900



**DB004** 1N4004 44009009  
**DB030,031,050,** BAV21 44044407  
 051,070,071,  
**DJ120,DL101,**  
**DP031,032**  
**DF002,003,101,** 1N4148 44009209  
 102,DH004,  
**DL004,015,030,**  
 060,103,116,  
 117,DP022,033,  
 034,035,037,  
 040,057,058,  
 070,081,DV070,  
 071,072  
**DF010,DL011,** 1N4001 16008160  
 013,035,DP095  
**DH001** BZX55C30 80444170  
**DI030,040** BA782S 20542050  
**DL010,012,025,** RGP10G 10459090  
 040,DP026,090  
**DL014** BZX55B15/ZPD15 2% 80444020  
**DL021** BY228 16008370  
**DL104,DR001** BZX55B5V1/ZPD5V1 2% 44035702  
**DL121,122** RGP15G 10272800  
**DL138** BAT42 16007410  
**DP001,002,003,** BYW27-1000 10455390  
 004  
**DP021** BZX55B16 11073430  
**DP023** BZX55C7V5 80444150  
**DP027** BZX55B30 20475340  
**DP030** BZX55C11 11073670  
**DP080** MUR460 16009650  
**DP092** EGP10D 20953640  
**GE101** LTL307/EE LED 16010330



**FI010** 0FWK6257K FOS 10545030  
**FI020** 0FWK9650M FOS 10545440  
**FI030** 40M4HZ 10664720  
**FI050** 5M74HZ 20338170  
**QS100** 18M432HZ 10334670  
**QV001** 12M0HZ 25418130



**LL122** 10636390



**PL140,143** 4K7 OHM 10082930  
**PL141** 470R0 OHM 10260250  
**PP051** 470R0 OHM 10260350



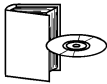
**RB001,004,** 1K5 OHM 5% 0,50W 10121880  
**RL026**  
**RB013** 10R0 OHM 10% 0,50W 15000160  
**RB031,051,071** 560R0 OHM 10% 0,50W 10257590  
**RF004,006,** 1K5 OHM 1% 0,25W 80437630  
**RK103**  
**RF007** 1R21 OHM 1% 0,70W 13010820  
**RF008** 2R2 OHM 5% 0,25W  $\Delta$  15009870  
**RK101** 453R0 OHM 1% 0,250W 15018140  
**RK102** 681R0 OHM 1% 0,25W 15020310  
**RK104** 3K32 OHM 1% 0,25W 15017270  
**RL010** 0R1 OHM 10% 0,40W  $\Delta$  15022510  
**RL012** 0R22 OHM 5% 0,50W  $\Delta$  10305450  
**RL040** 47R0 OHM 5% 0,35W  $\Delta$  20923340  
**RL090** 127K0 OHM 1% 0,40W 41310702  
**RP002** 18R0 OHM 220V PTC  $\Delta$  41398800  
**RP008** 4R7 OHM 5% 3W 25477780  
**RP020** 0R68 OHM 5% 2,5W 20822410  
**RP050** 10M0 OHM 5% 0,70W  $\Delta$  10074320  
**RS039,040,140** 4R7 OHM 5% 0,35W  $\Delta$  10226310  
**RS056** 0R47 OHM 10% 0,40W  $\Delta$  15022650  
**RS160** 3R9 OHM 5% 0,25W  $\Delta$  15009970

**R : RECYCLED PART**  
**: PIECE RECYCLEE**  
**: AUSTAUSCHTEILE**  
**: RICAMBIO RICICLATO**  
**: MODULO REPROCESADO**

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|--|--|
| <div> <div></div> <div></div> </div>                                                                                                                                                                                                      |                                                                                                                                                                            |            |  |  |  |
| CB001                                                                                                                                                                                                                                     | 10N0F 3K0V                                                                                                                                                                 | 14036450   |  |  |  |
| CB004                                                                                                                                                                                                                                     | 47N0F 5% 250V                                                                                                                                                              | 40433080   |  |  |  |
| CL003                                                                                                                                                                                                                                     | 22N0F 5% 400V                                                                                                                                                              | 10535740   |  |  |  |
| CL010,012,026,040,CP089,093                                                                                                                                                                                                               | 330P0F 20% 1K0V                                                                                                                                                            | 14035270   |  |  |  |
| CL021                                                                                                                                                                                                                                     | 14N4F 3,5% 1K6V                                                                                                                                                            | 10042750   |  |  |  |
| CL024                                                                                                                                                                                                                                     | 440N0F 5% 250V                                                                                                                                                             | 43352100   |  |  |  |
| CL122                                                                                                                                                                                                                                     | 27N0F 5% 400V                                                                                                                                                              | 10263540   |  |  |  |
| CL123                                                                                                                                                                                                                                     | 2U7F 10% 100V                                                                                                                                                              | 10161170   |  |  |  |
| CL144                                                                                                                                                                                                                                     | 100P0F 20% 1K0V                                                                                                                                                            | 14035280   |  |  |  |
| CP001                                                                                                                                                                                                                                     | 100N0F 20% 275V                                                                                                                                                            | △ 10331520 |  |  |  |
| CP003                                                                                                                                                                                                                                     | 68N0F 20% 250V                                                                                                                                                             | 10256210   |  |  |  |
| CP004                                                                                                                                                                                                                                     | 1N5F 10% 1K0V                                                                                                                                                              | 20338740   |  |  |  |
| CP005,006                                                                                                                                                                                                                                 | 4N7F 1K0V                                                                                                                                                                  | 10058740   |  |  |  |
| CP008                                                                                                                                                                                                                                     | 150U0F 20% 400V                                                                                                                                                            | 13050060   |  |  |  |
| CP009                                                                                                                                                                                                                                     | 3N3F 20% 1K6V                                                                                                                                                              | 10607950   |  |  |  |
| CP050                                                                                                                                                                                                                                     | 2N2F 20% 400V                                                                                                                                                              | △ 10344870 |  |  |  |
| CP082                                                                                                                                                                                                                                     | 1N0F 10% 500V                                                                                                                                                              | 10546570   |  |  |  |
| <div> <div></div> <div></div> </div>                                                                                                                                                                                                      |                                                                                                                                                                            |            |  |  |  |
| LL005                                                                                                                                                                                                                                     | DSTMH30                                                                                                                                                                    | △ 10691490 |  |  |  |
| LL026                                                                                                                                                                                                                                     | 23U0H 15%                                                                                                                                                                  | △ 10678590 |  |  |  |
| LL032                                                                                                                                                                                                                                     | DRIVER                                                                                                                                                                     | 20936440   |  |  |  |
| LP002                                                                                                                                                                                                                                     | 25M0H                                                                                                                                                                      | △ 10688710 |  |  |  |
| LP003                                                                                                                                                                                                                                     | SMT                                                                                                                                                                        | △ 10693580 |  |  |  |
| OTHER PARTS<br>AUTRES PIECES<br>SONSTIGE TEILE<br>ALTRE PARTI<br>OTRAS PIEZAS                                                                                                                                                             |                                                                                                                                                                            |            |  |  |  |
| BB005                                                                                                                                                                                                                                     | CATHODE RAY TUBE SOCKET<br>SUPPORT TUBE CATHODIQUE<br>BILDROEHRENFASSUNG<br>SUPPORTO TUBO CATODICO<br>SOPORTE T.R.C                                                        | △ 80298800 |  |  |  |
| BJ110                                                                                                                                                                                                                                     | CINCH SOCKET<br>PRISE CINCH<br>CINCH-BUCHSE<br>PRESA CINCH<br>TOMA CINCH                                                                                                   | 10037440   |  |  |  |
| BQ112                                                                                                                                                                                                                                     | HEADPHONE SOCKET<br>PRISE CASQUE<br>KOPFHOERERBUCHSE<br>PRESA JACK<br>TOMA JACK                                                                                            | 20345310   |  |  |  |
| BV001                                                                                                                                                                                                                                     | SCART SOCKET<br>PRISE PERITEL<br>EURO-AV-BUCHSE<br>EUROPRESA NORMALIZZATA<br>EUROCONNECTOR                                                                                 | 10362830   |  |  |  |
| CH200                                                                                                                                                                                                                                     | ON/OFF SWITCH MSB2000<br>CONTACTEUR MARCHE/ARRET<br>MSB2000<br>EIN-AUS SCHALTER MSB2000<br>CONTATTATORE ACCESO/<br>SPENTO MSB2000<br>CONTACTOR MARCHA/PARADA<br>MSB2000    | △ 10276500 |  |  |  |
| CJ100                                                                                                                                                                                                                                     | THT CABLE 600MM<br>CABLE THT 600MM<br>KABEL THT 600MM<br>CAVO THT 600MM<br>CABLE THT 600MM                                                                                 | △ 10562580 |  |  |  |
| CJ105                                                                                                                                                                                                                                     | CABLE 460MM 20KV HT<br>STRIPPED<br>CABLE 460MM 20KV HT<br>STRIPPED<br>KABEL 460MM 20KV HT<br>STRIPPED<br>CAVO 460MM 20KV HT<br>STRIPPED<br>CABLE 460MM 20KV HT<br>STRIPPED | △ 10369650 |  |  |  |
| FP001                                                                                                                                                                                                                                     | 1A6T 250V TIME-LAG FUSE<br>1A6T 250V FUSIBLE TEMPORISE<br>1A6T 250V SICHERUNG<br>1A6T 250V FUSIBILE TEMPORIZZATO<br>1A6T 250V FUSIBLE TEMPORIZADO                          | △ 48064700 |  |  |  |
| NH001                                                                                                                                                                                                                                     | CTT5010 UHF/VHF TUNER<br>CTT5010 TETE UHF/VHF<br>CTT5010 UHF/VHF TUNER<br>CTT5010 TUNER UHF/VHF<br>CTT5010 SINTONIZADOR<br>UHF/VHF                                         | 20812280   |  |  |  |
| SK101,102,103,104                                                                                                                                                                                                                         | MICROSWITCH<br>MICRO CONTACTEUR<br>MIKROSCHALTER<br>MICROINTERRUPTORE<br>MICROCONTACTOR                                                                                    | 30011100   |  |  |  |
| EQUIPMENT/PRESENTATION<br>EQUIPEMENT/PRESENTATION<br>AUSSTATTUNG/GEHAEUSE<br>PARTI VARIE<br>EQUIPO/PRESENTACION                                                                                                                           |                                                                                                                                                                            |            |  |  |  |
| FRONT PANEL<br>FACADE<br>FRONTPLATTE<br>PANNELLO FRONTALE<br>PANEL FRONTAL                                                                                                                                                                |                                                                                                                                                                            | 25371140   |  |  |  |
| REAR PANEL GY20TH<br>DOS GY20TH<br>RUECKWAND GY20TH<br>PANNELLO POSTERIORE GY20TH<br>TAPA POSTERIOR GY20TH                                                                                                                                |                                                                                                                                                                            | △ 25450010 |  |  |  |
| INFRARED WINDOW<br>GLACE INFRAROUGE<br>INFRAROTFENSTER<br>VETRO INFRAROSSO<br>CRISTAL INFRARROJO                                                                                                                                          |                                                                                                                                                                            | 25361990   |  |  |  |
| LOGO FERGUSON<br>LOGO FERGUSON<br>SCHRIFTZUG FERGUSON<br>MARCHIO FERGUSON<br>LOGOTIPO FERGUSON                                                                                                                                            |                                                                                                                                                                            | 25295050   |  |  |  |
| CHASSIS SUPPORT<br>SUPPORT CHASSIS<br>CHASSIS HALTER<br>SUPPORTO CHASSIS<br>SOPORTE CHASSIS                                                                                                                                               |                                                                                                                                                                            | 25382530   |  |  |  |
| 8R OHM 15W LOUDSPEAKER 60X125<br>8R OHM 15W HAUT PARLEUR 60X125<br>8R OHM 15W LAUTSPRECHER 60X125<br>8R OHM 15W ALTOPARLANTE 60X125<br>8R OHM 15W ALTAVOZ 60X125                                                                          |                                                                                                                                                                            | 10467060   |  |  |  |
| ON/OFF BUTTON<br>TOUCHE MARCHE/ARRET<br>EIN-AUS TASTE<br>TASTO ACCESO/SPENTO<br>TECLA MARCHA/PARADA                                                                                                                                       |                                                                                                                                                                            | 25309090   |  |  |  |
| BUTTON ASSY<br>ENSEMBLE DE TOUCHES<br>TASTENEINHEIT<br>ASSIEME TASTI<br>CONJUNTO DE TECLAS                                                                                                                                                |                                                                                                                                                                            | 25312630   |  |  |  |
| POWER SUPPLY LEAD<br>CORDON D'ALIMENTATION<br>NETZKABEL<br>CAVO DI ALIMENTAZIONE<br>CABLE DE ALIMENTACION<br>CORD STOPPER<br>ATTACHE CORDON SECTEUR<br>ZUGENTLASTUNG<br>BRIDA CORDONE DI ALIMENTAZIONE<br>SUJECION CABLE DE ALIMENTACION  |                                                                                                                                                                            | △ 25420360 |  |  |  |
| A66EHJ13X15 CATHODE RAY TUBE<br>A66EHJ13X15 TUBE CATHODIQUE<br>A66EHJ13X15 FARBBILDROEHRE<br>A66EHJ13X15 TUBO CATODICO<br>A66EHJ13X15 T.R.C                                                                                               |                                                                                                                                                                            | △ 10715790 |  |  |  |
| DEGAUSSING COIL<br>BOBINE DE DEMAGNETISATION<br>ENTMAGNETISIERUNGSSPULE<br>BOBINA DI SMAGNETTIZZAZIONE<br>BOBINA DE DESIMANTACION                                                                                                         |                                                                                                                                                                            | △ 47320183 |  |  |  |
| RCTMB100 REMOTE CONTROL<br>RCTMB100 TELECOMMANDE<br>RCTMB100 FERNBEDIENUNG<br>RCTMB100 TELECOMANDO<br>RCTMB100 TELEMANDO                                                                                                                  |                                                                                                                                                                            | 20879230   |  |  |  |
| FOLDING BOX<br>EMBALLAGE CARTON<br>KARTON<br>IMBALLAGGIO CARTONE<br>EMBALAJE CARTON                                                                                                                                                       |                                                                                                                                                                            | 25354290   |  |  |  |
| FITTING DOWNER<br>CALE INFERIEURE<br>POLSTER UNTEN<br>DISTANZIATORE INFERIORE<br>CALZO INFERIOR                                                                                                                                           |                                                                                                                                                                            | 25325150   |  |  |  |
| FITTING UPPER<br>CALE SUPERIEURE<br>POLSTER OBEN<br>DISTANZIATORE SUPERIORE<br>CALZO SUPERIOR                                                                                                                                             |                                                                                                                                                                            | 25325170   |  |  |  |
| MAINTENANCE TOOLS<br>MAINTENANCE<br>WERKZEUG FUER DAS GERAET<br>UTENSILI DI MANUTENZIONE<br>MANTENIMIENTO                                                                                                                                 |                                                                                                                                                                            |            |  |  |  |
| TX807C/CS 110D POWER SUPPLY REPAIR KIT<br>TX807C/CS 110D KIT DE MAINTENANCE ALIMENTATION<br>TX807C/CS 110D REPARATURSET NETZTEIL<br>TX807C/CS 110D KIT PER RIPARARE L'ALIMENTAZIONE<br>TX807C/CS 110D KIT DE REPARACION DE L'ALIMENTACION |                                                                                                                                                                            | 35135370   |  |  |  |



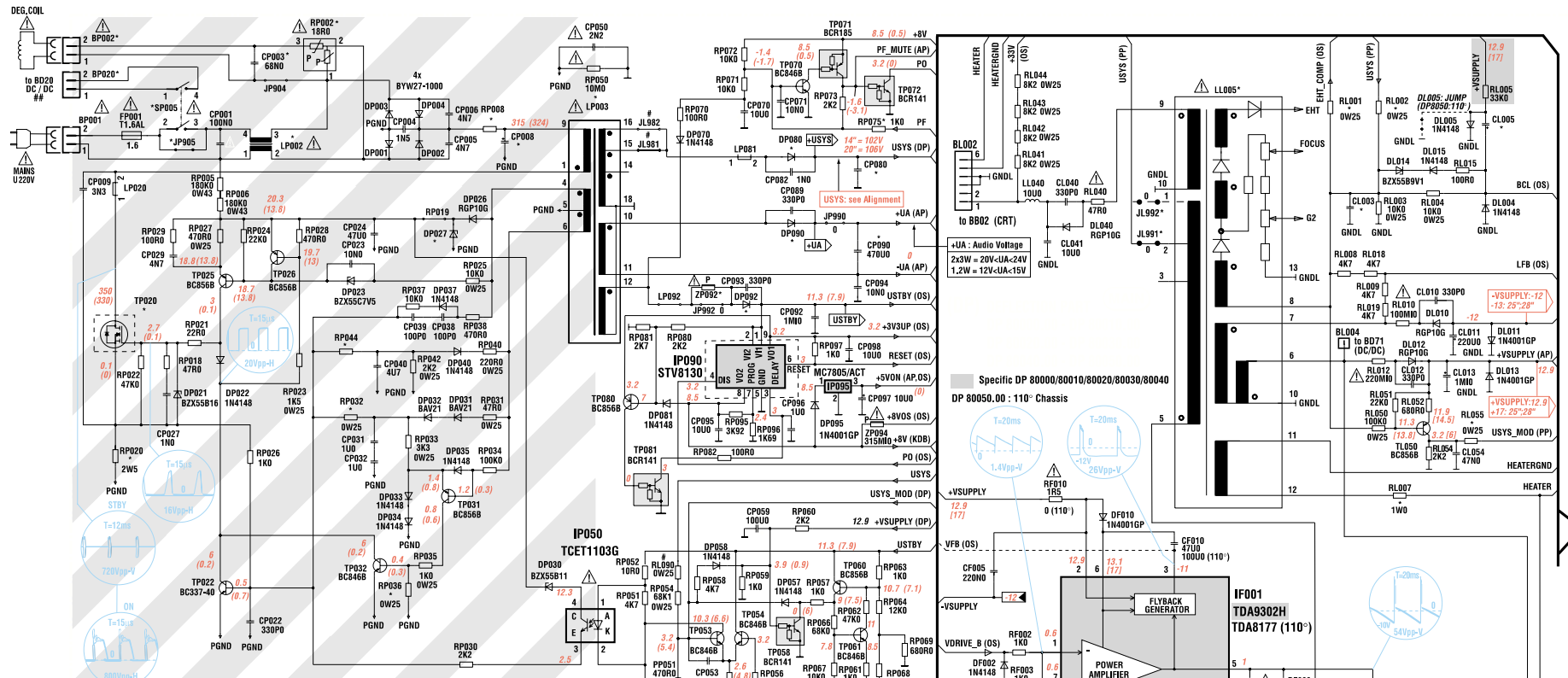
|                                          |          |
|------------------------------------------|----------|
| T7017U PARTS LIST                        | 35151780 |
| T7017U LISTE DE PIECES DETACHEES         |          |
| T7017U ERSATZTEILLISTE                   |          |
| T7017U LISTA PARTI DI RICAMBIO           |          |
| T7017U LISTA DE PIEZAS DE REPUESTO       |          |
| TX807C/CS SERVICE MANUAL                 | 35110300 |
| TX807C/CS DOC TECHNIQUE                  |          |
| TX807C/CS TECHNISCHE DOKUMENTATION       |          |
| TX807C/CS DOCUMENTAZIONE TECNICA         |          |
| TX807C/CS DOCUMENTACION TECNICA          |          |
| TX807C/CS SERVICE MANUAL SUPPLEMENT      | 35141950 |
| TX807C/CS DOC TECHNIQUE ADDITIF          |          |
| TX807C/CS SECHNISCHE DOKUMENTATION ZUSAT |          |
| TX807C/CS DOCUMENTAZIONE ADDITIVO        |          |
| TX807C/CS DOCUMENTACION ADITIVO          |          |
| CDROM TX807 VERSION 2                    | 35110290 |
| CDROM TX807 VERSION 2                    |          |
| CDROM TX807 VERSION 2                    |          |
| CDROM TX807 VERSION 2                    |          |
| CDROM TX807 VERSION 2                    |          |
| TX807C/CS UM 10 LANGUAGES                | 50011430 |
| TX807C/CS NU 10 LANGUAGES                |          |
| TX807C/CS BA 10 LANGUAGES                |          |
| TX807C/CS IU 10 LANGUAGES                |          |
| TX807C/CS IU 10 LANGUAGES                |          |

**OPTION**  
**OPTION**  
**OPTION**  
**OPZIONE**  
**OPCION**

|                     |          |
|---------------------|----------|
| ST7040SB TV STAND   | 35151900 |
| ST7040SB MEUBLE TV  |          |
| ST7040SB TV-SCHRANK |          |
| ST7040SB MOBILE TV  |          |
| ST7040SB MUEBLE TV  |          |

**T7017U**

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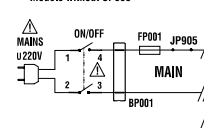


|         | PP 8000D<br>PP 8002 | PP 8001    | PP 8003    | PP 8005    | PP 8007    |
|---------|---------------------|------------|------------|------------|------------|
| BP002   | X                   | X          | X          | X          | X          |
| BP20/99 | -                   | -          | -          | -          | -          |
| CP003   | X                   | X          | X          | X          | X          |
| CP008   | 6800                | 10000      | 10000      | 15000      | 6800       |
| CP080   | 10000               | 10000      | 10000      | 22000      | 10000      |
| CP090   | 16.0V               | 25.0V      | 25.0V      | 25.0V      | 16.0V      |
| DP027   | BZX55B27            | BZX55B27   | BZX55B27   | BZX55B30   | BZX55B27   |
| DP030   | MUR160              | MUR160     | MUR160     | MUR160     | MUR160     |
| DP090   | RG10G               | MUR120     | MUR120     | RG10G      | RG10G      |
| DP092   | MUR120              | MUR120     | MUR120     | EGP100     | EGP100     |
| JP005   | X                   | -          | X          | X          | X          |
| JP092   | X                   | -          | X          | X          | X          |
| LP002   | 60M0                | 60M0       | 60M0       | 25M0       | 12M0       |
| LP003   | 106S8360            | 106S6090   | 106S6090   | 106S3580   | 106S5630   |
| RP002   | X                   | X          | X          | X          | X          |
| RP008   | SR12.5W             | SR12.5W    | SR12.5W    | 4R7/3W     | SR12.5W    |
| RP020   | 1R0                 | 1R0        | 1R0        | 680M0      | 1R0        |
| RP032   | 33K0                | 33K0       | 33K0       | 27K0       | 33K0       |
| RP036   | 2K2                 | 2K2        | 2K2        | 1K8        | 2K2        |
| RP044   | 12K0                | 10K0       | 10K0       | 7K5        | 12K0       |
| RP075   | X                   | -          | -          | X          | X          |
| SP005   | X                   | -          | -          | X          | X          |
| TP020   | STP3NB90FP          | STP3NB90FP | STP3NB90FP | STP3NB90FP | STP3NB90FP |
| ZP092   | -                   | MP315      | MP315      | MP315      | -          |

X : Inserted - : Not inserted

|                                            | CL003 | CL005 | CL021 | CL022 | CL024 | CL033 | CL021 | LL005    | RF007 | RF010 | RL001 | RL002 | RL007       | RL034 | RL055 | RL926 | RL991 | RL992 |
|--------------------------------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|
| DP 30000 90° 4/3<br>10" Mini Neck          | 10N   | 4U7   | 6N6   | 330P  | 390N0 | 22N0  | -     | 106S8460 | 1R82  | 1R5   | 82K0  | 120K0 | 2R2<br>4700 | 68K0  | X     | -     | X     |       |
| DP 80010 90° 4/3<br>14" Mini Neck          | 10N   | 4U7   | 6N6   | 330P  | 440N0 | 22N0  | -     | 106S8340 | 1R82  | 1R5   | 82K0  | 100K0 | 2R2<br>3900 | 68K0  | X     | -     | X     |       |
| DP 80020 90° 4/3<br>17" Mini Neck          | 10N   | 4U7   | 7N6   | -     | 330N0 | 22N0  | -     | 106S8470 | 1R5   | 1R5   | 82K0  | 91K0  | 2R2<br>3300 | 68K0  | X     | X     | -     |       |
| DP 80030 90° 4/3<br>20" Narrow Neck        | 10N   | 4U7   | 7N6   | -     | 440N0 | 22N0  | -     | 106S8470 | 1R5   | 1R5   | 82K0  | 82K0  | 1R0<br>1W0  | 68K0  | X     | -     | -     |       |
| DP 80040 90° 4/3<br>21" Narrow Neck        | 10N   | 4U7   | 8N3   | -     | 440N0 | 22N0  | -     | 106S4690 | 1R21  | 1R5   | 91K0  | 91K0  | 1R0<br>1W0  | 68K0  | -     | -     | X     |       |
| DP 80050 110° 4/3<br>25" - 21" Narrow Neck | 22N   | 2U2   | 14N6  | -     | 440N0 | 100N0 | X     | 106S4690 | 1R21  | 0     | 220K0 | 91K0  | 1R0<br>1W0  | 220K0 | -     | -     | X     |       |

#### Models without SP005



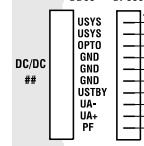
(0.7) : Standby

Use isolating mains transformer.  
Utiliser un transformateur isolateur du secteur.  
Einen Trenntrafo verwenden.  
Utilizzare un trasformatore isolatore di rete.

Part of board connected to mains supply.  
Partie du chassis reliée au secteur.  
Primärseite des Netzteils.  
Parte dello chassis collegata alla rete.  
Parte del chassis conectada a la red.

Note :  
Power Supply primary circuit measurements.  
- Use only (PGND) connection point.  
Attention :  
Mesure dans la partie primaire de l'alimentation  
- Utiliser la masse du bloc alimentation (PGND).  
Achtung :  
Bei Messungen im Primärnetzteil  
- Primärnetzteilmasse verwenden (PGND).  
Attenzione :  
misura nell'alimentatore primario  
- usare massa alimentazione primario (PGND).  
Cuidado :  
Medida en el bloque de alimentación  
- Utilizar la masa del bloque de alimentación (PGND).

# = value see DP 8... partlists  
## : only some models  
BD90  
BD999\*

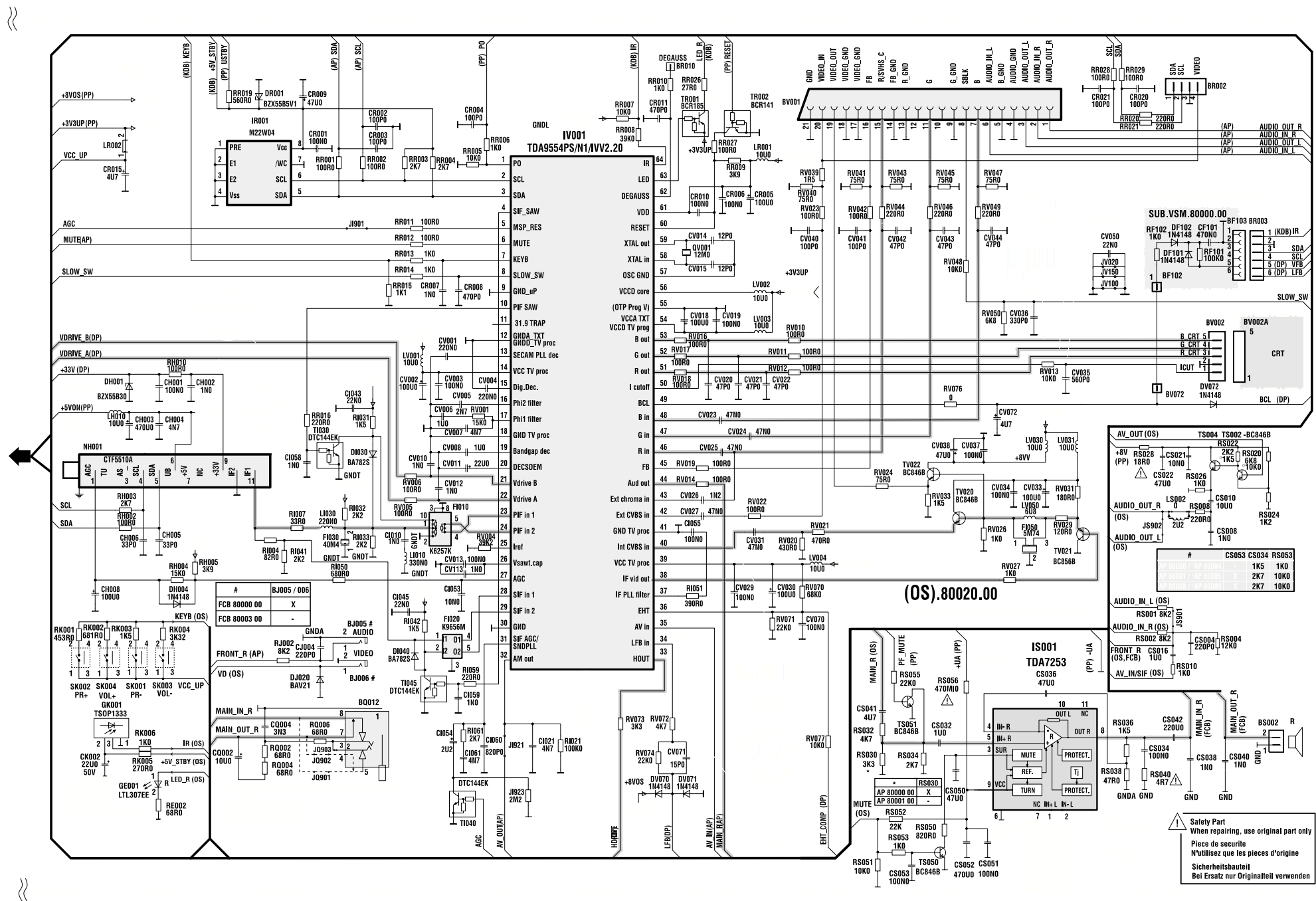


DC/DC

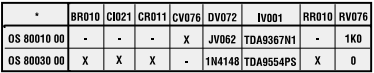
(0.7) : Standby  
(17) : Specific 110° (25°-28°)

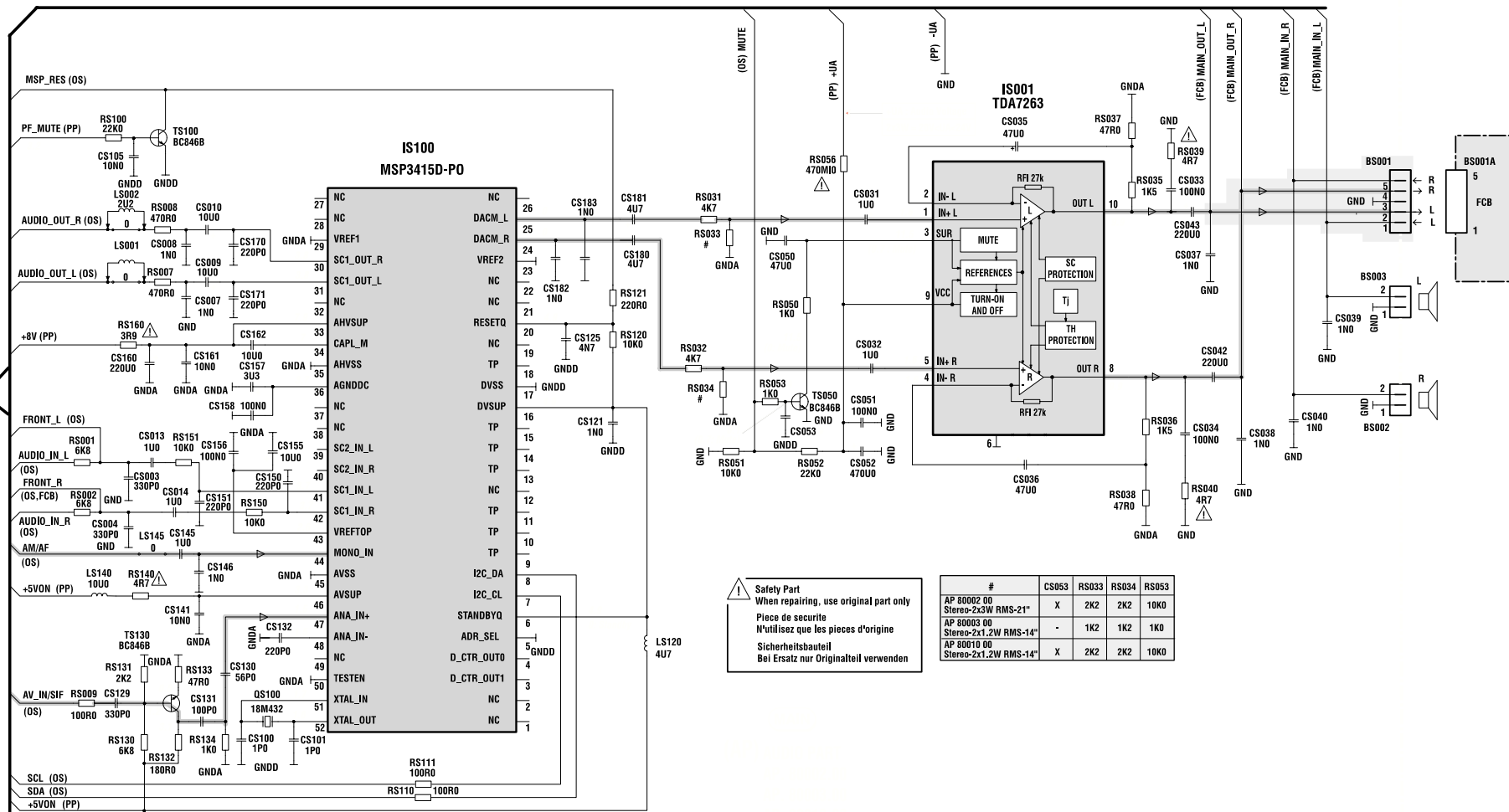
Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.  
Le remplacement des éléments de sécurité (repérés avec le symbole par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.  
Wenn Sicherheitssteile (mit dem Symbol gekennzeichnet) durch nicht-normgerechte Teile ersetzt werden, erlischt die Haftung des Herstellers.

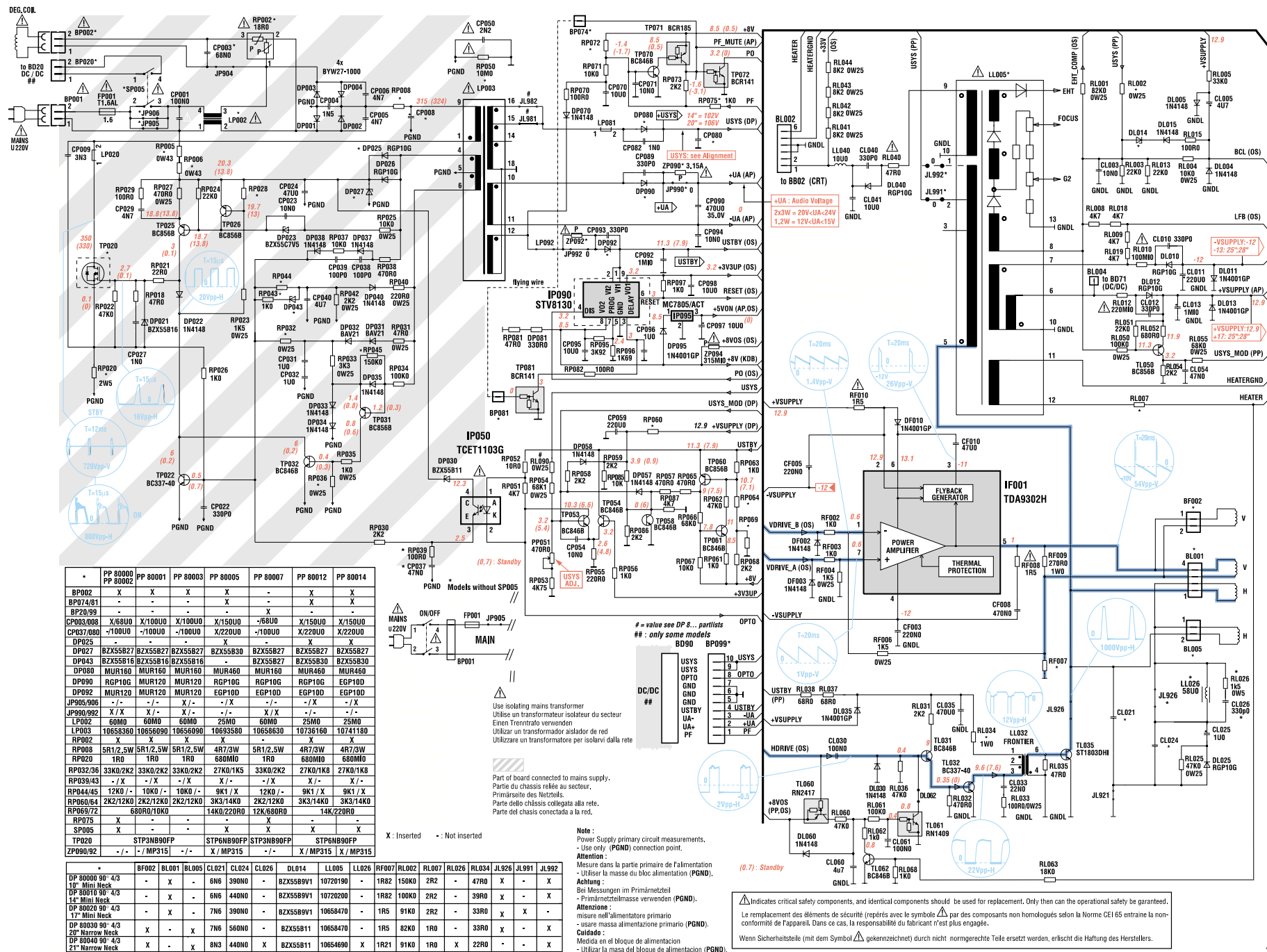




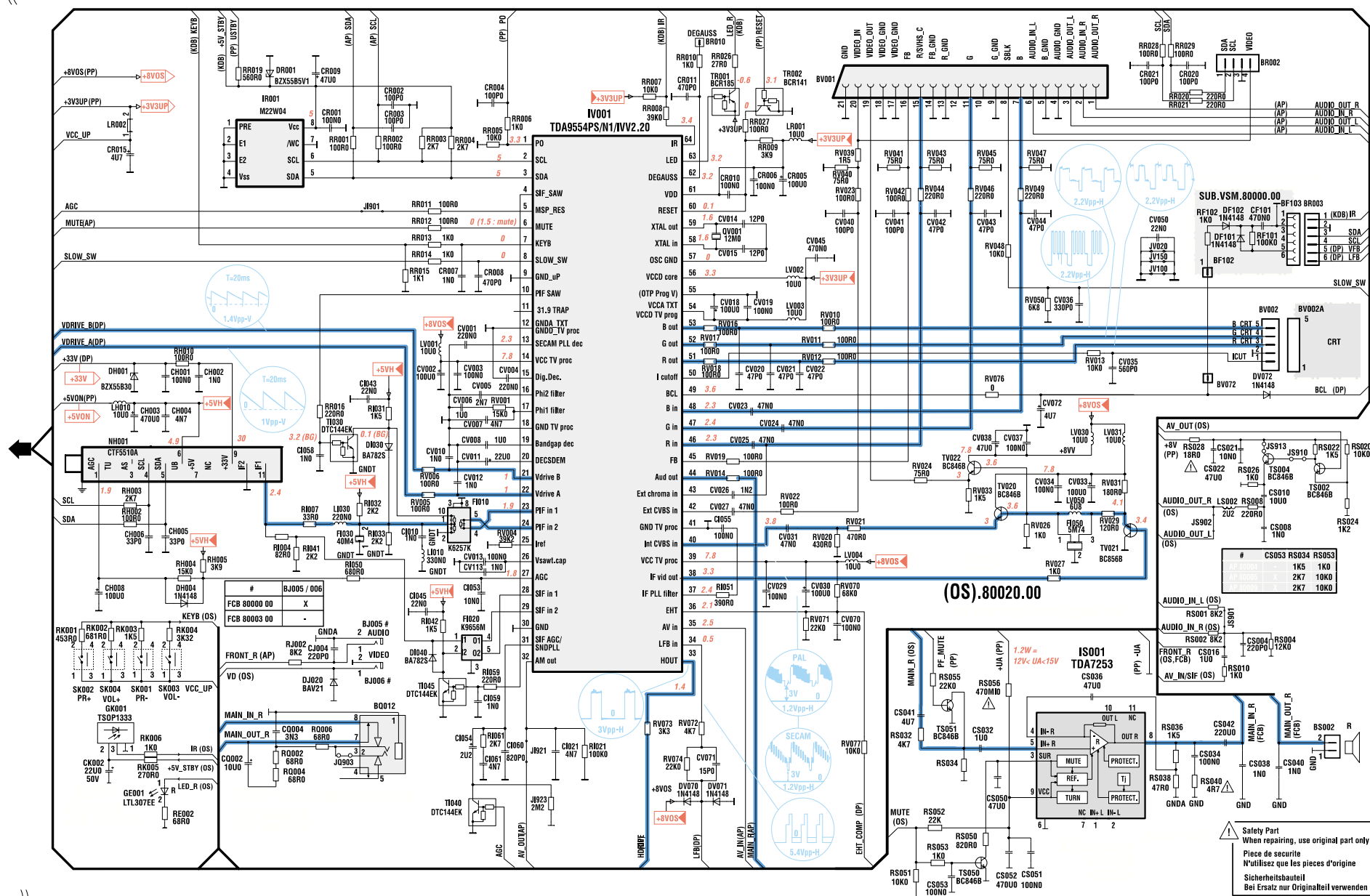


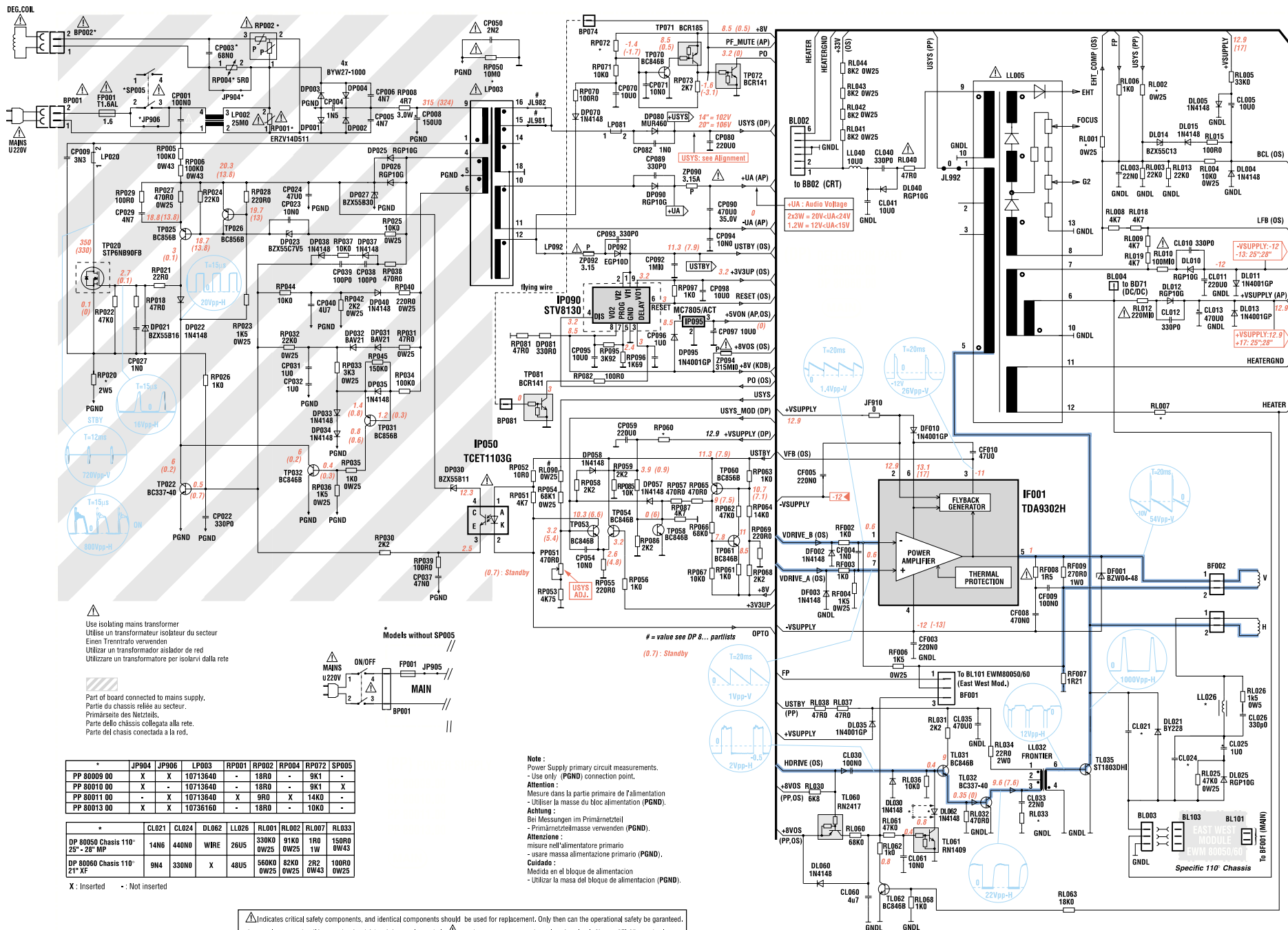












⚠ Usa isolating mains transformer  
Utilisez un transformateur isolateur du secteur  
Einen Trenntrafo verwenden  
Utilizar un transformador aislador de red  
Utilizzare un trasformatore per isolarsi dalla rete

Part of board connected to mains supply,  
Partie du chassis reliée au secteur.  
Primärseite des Netzteils,  
Parte dello chassis collegata alla rete.  
Parte del chasis conectada a la red.

| *           | JP904 | JP906 | LP003    | RP001 | RP002 | RP004 | RP072 | SP005 |
|-------------|-------|-------|----------|-------|-------|-------|-------|-------|
| PP 80009 00 | X     | X     | 10713640 | -     | 18R0  | -     | 9K1   | -     |
| PP 80010 00 | X     | -     | 10713640 | -     | 18R0  | -     | 9K1   | X     |
| PP 80011 00 | -     | X     | 10713640 | X     | 9R0   | X     | 14K0  | -     |
| PP 80013 00 | X     | X     | 10736160 | -     | 18R0  | -     | 10K0  | -     |

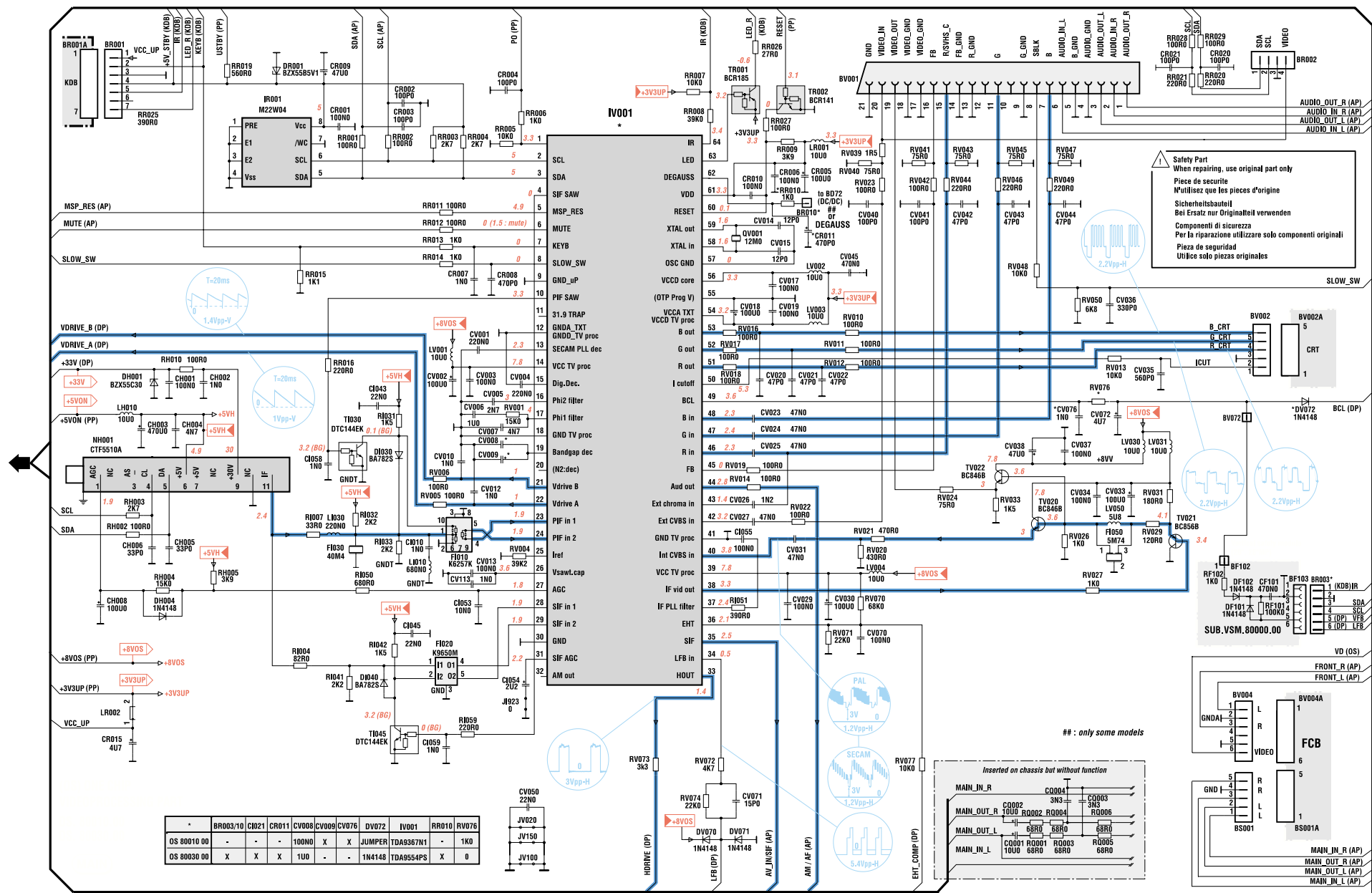
| *                                    | CL021 | CL024 | DL062 | LL026 | RL001         | RL002        | RL007       | RL033         |
|--------------------------------------|-------|-------|-------|-------|---------------|--------------|-------------|---------------|
| DP 80050 Chasis 110°<br>25° - 28° MP | 14N6  | 440N0 | WIRE  | 26U5  | 330K0<br>OW25 | 91K0<br>OW25 | 1R0<br>1W   | 150R0<br>OW43 |
| DP 80060 Chasis 110°<br>21° XF       | 9N4   | 330N0 | X     | 48U5  | 56K0<br>OW25  | 82K0<br>OW25 | 2R2<br>OW43 | 100R0<br>OW25 |

X : Inserted - : Not inserted

⚠ Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.  
Le remplacement des éléments de sécurité (repérés avec le symbole ⚠ par des composants non homologués selon la Norme CEI 65 entraine la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.  
Wenn Sicherheitsteile (mit dem Symbol ⚠ gekennzeichnet) durch nicht normgerechte Teile ersetzt werden, erlischt die Haftung des Herstellers.

Note :  
Power Supply primary circuit measurements.  
- Use only (PGND) connection point.  
Attention :  
Mesure dans la partie primaire de l'alimentation  
- Utiliser la masse du bloc alimentation (PGND).  
Achtung :  
Bei Messungen im Primärnetzteil  
- Primärnetzteilmasse verwenden (PGND).  
Attenzione :  
misura nell'alimentatore primario  
- usare massa alimentazione primario (PGND).  
Cuidado :  
Medida en el bloque de alimentación  
- Utilizar la masa del bloque de alimentación (PGND).

(0.7) : Standby  
(17) : Specific 110° (25°-28°)

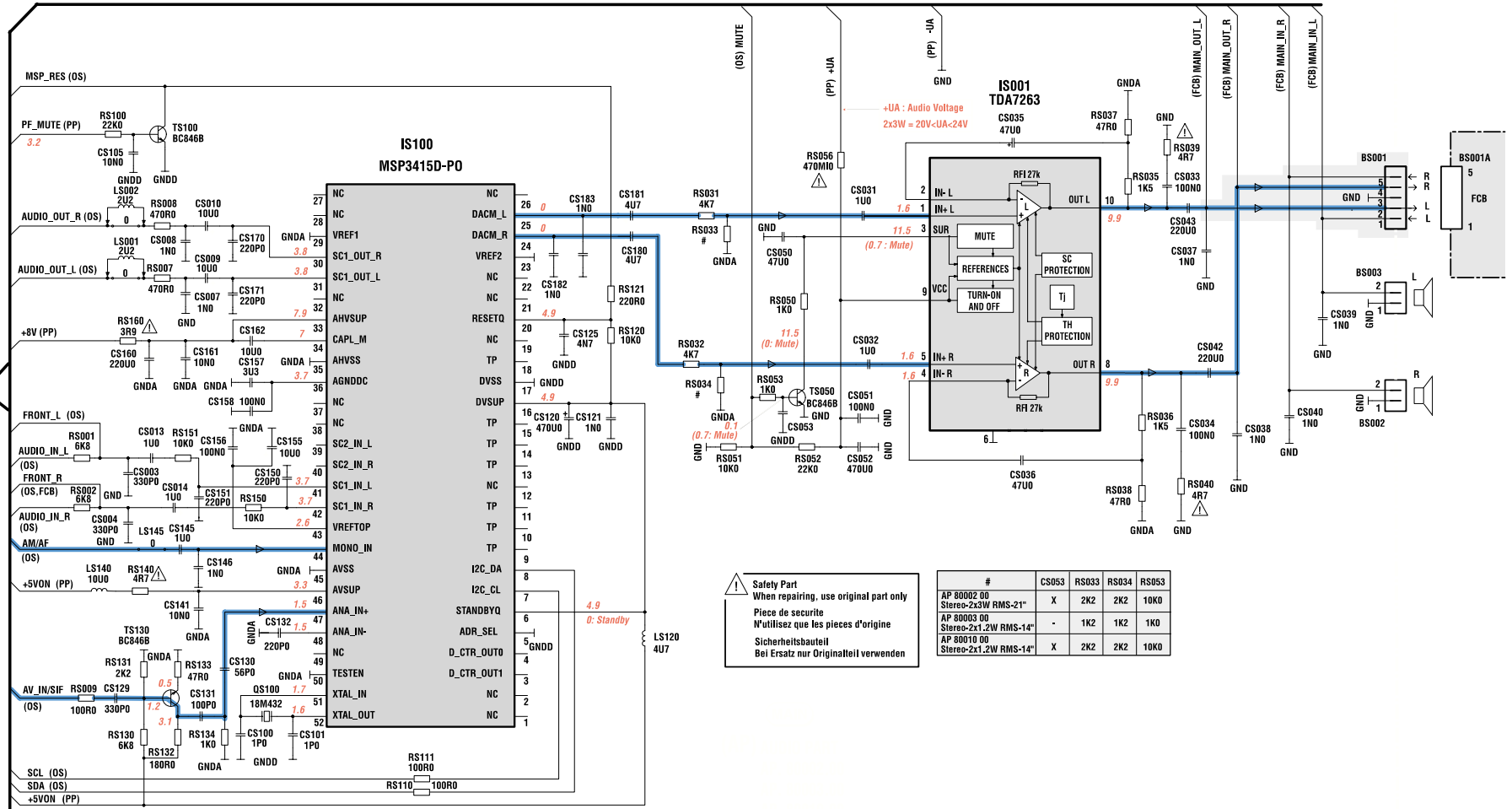


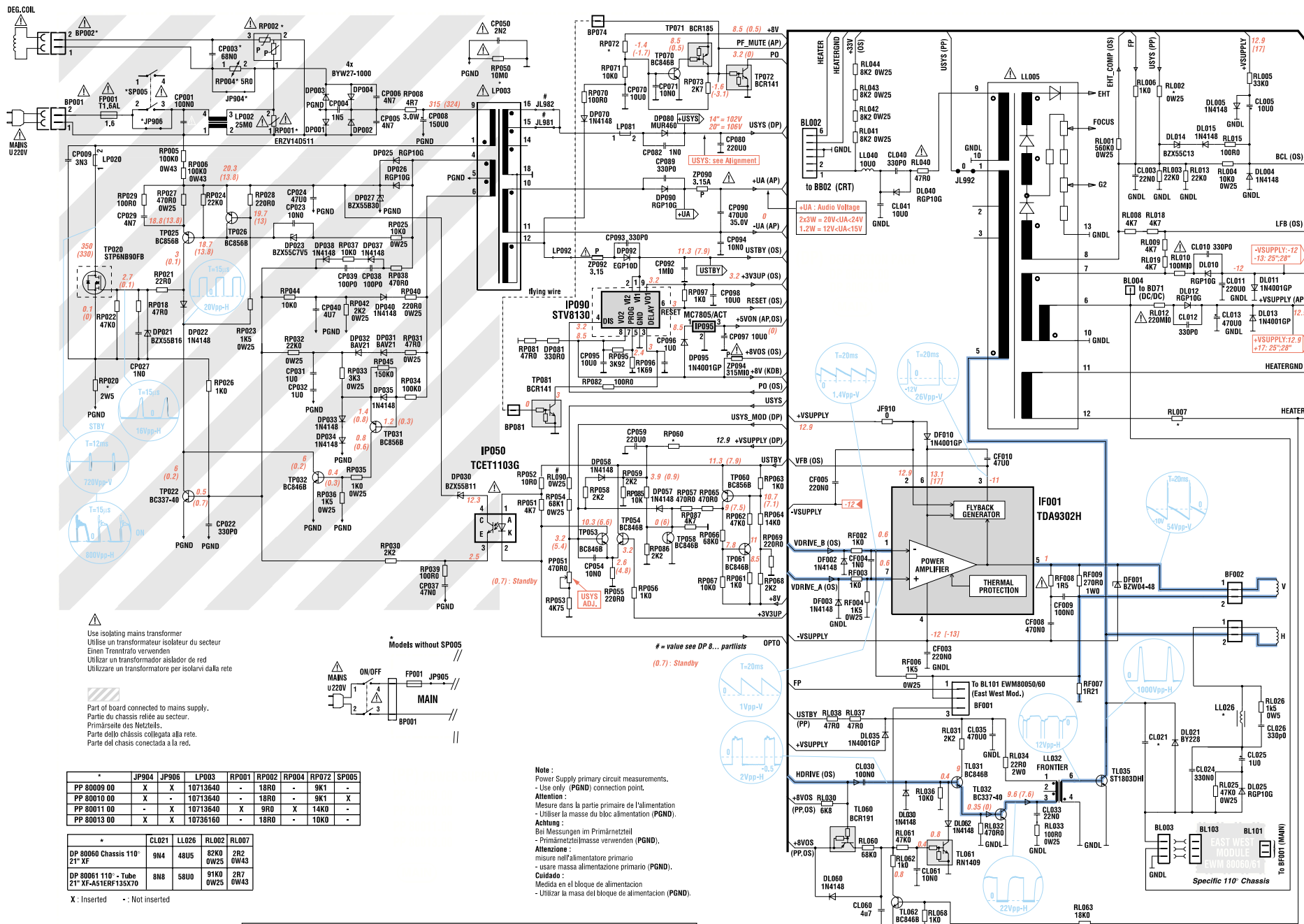


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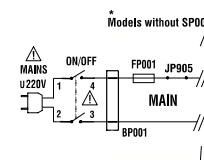
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Use isolating mains transformer  
 Utilisez un transformateur isolateur du secteur  
 Einen Trenntrafo verwenden  
 Utilizar un transformador aislador de red  
 Utilizzare un trasformatore per isolarvi dalla rete

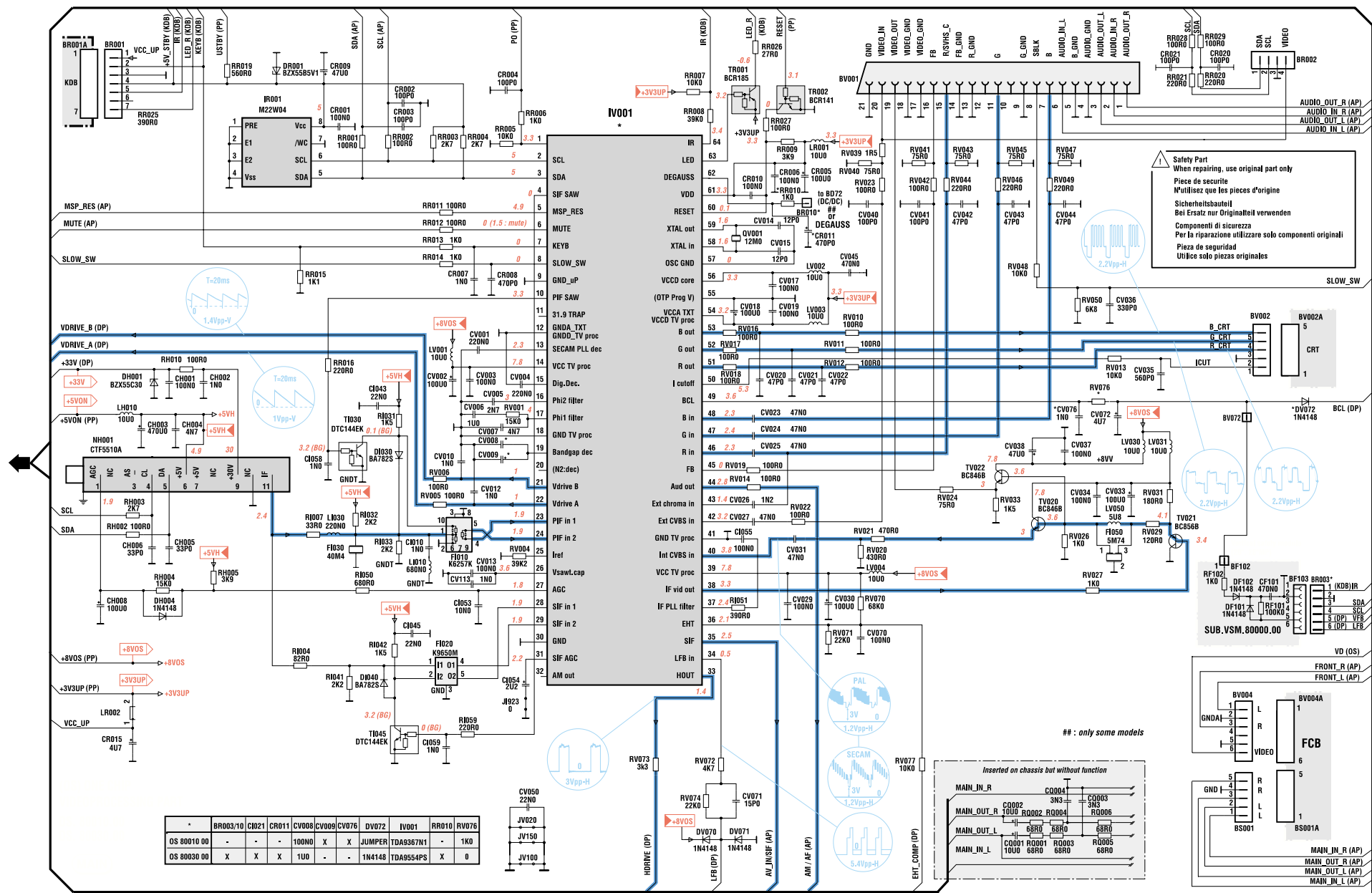
Part of board connected to mains supply.  
 Partie du chassis reliée au secteur.  
 Primärseite des Netzteils.  
 Parte dello chassis collegata alla rete.  
 Parte del chasis conectada a la red.



**Note:**  
 Power Supply primary circuit measurements.  
 - Use only (PGND) connection point.  
**Attention:**  
 Mesure dans la partie primaire de l'alimentation  
 - Utiliser la masse du bloc alimentation (PGND).  
**Achtung:**  
 Bei Messungen im Primärnetzteil  
 - Primärnetzteilmasse verwenden (PGND).  
**Attenzione:**  
 misura nell'alimentatore primario  
 - usare massa alimentazione primario (PGND).  
**Cuidado:**  
 Medida en el bloque de alimentación  
 - Utilizar la masa del bloque de alimentación (PGND).

⚠ Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.  
 Le remplacement des éléments de sécurité (repérés avec le symbole ⚠ par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.  
 Wenn Sicherheitssteile (mit dem Symbol ⚠ gekennzeichnet) durch nicht normgerechte Teile ersetzt werden, erlischt die Haftung des Herstellers.

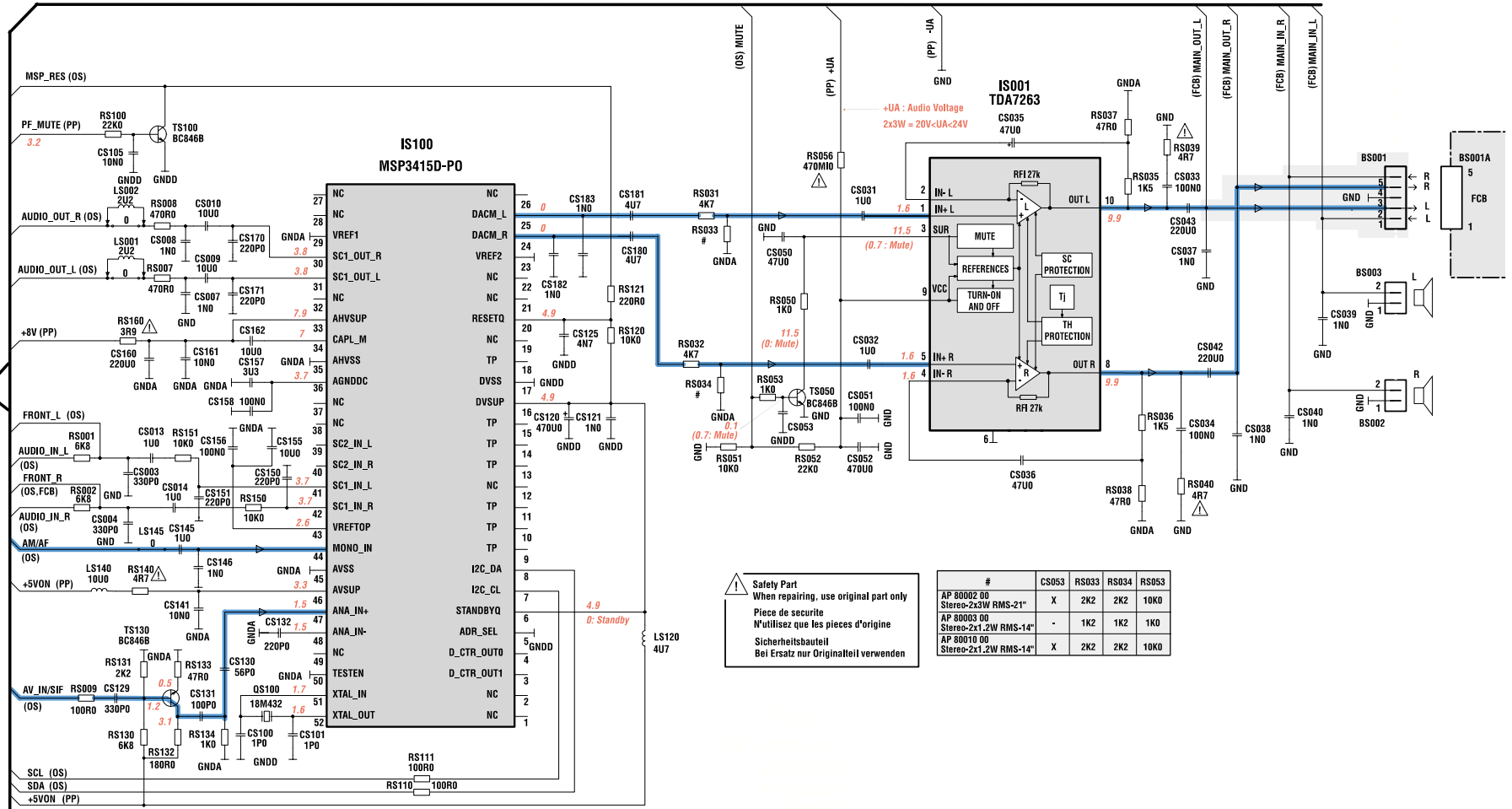
(0.7) : Standby  
 (17) : Specific 110° (25°-28°)



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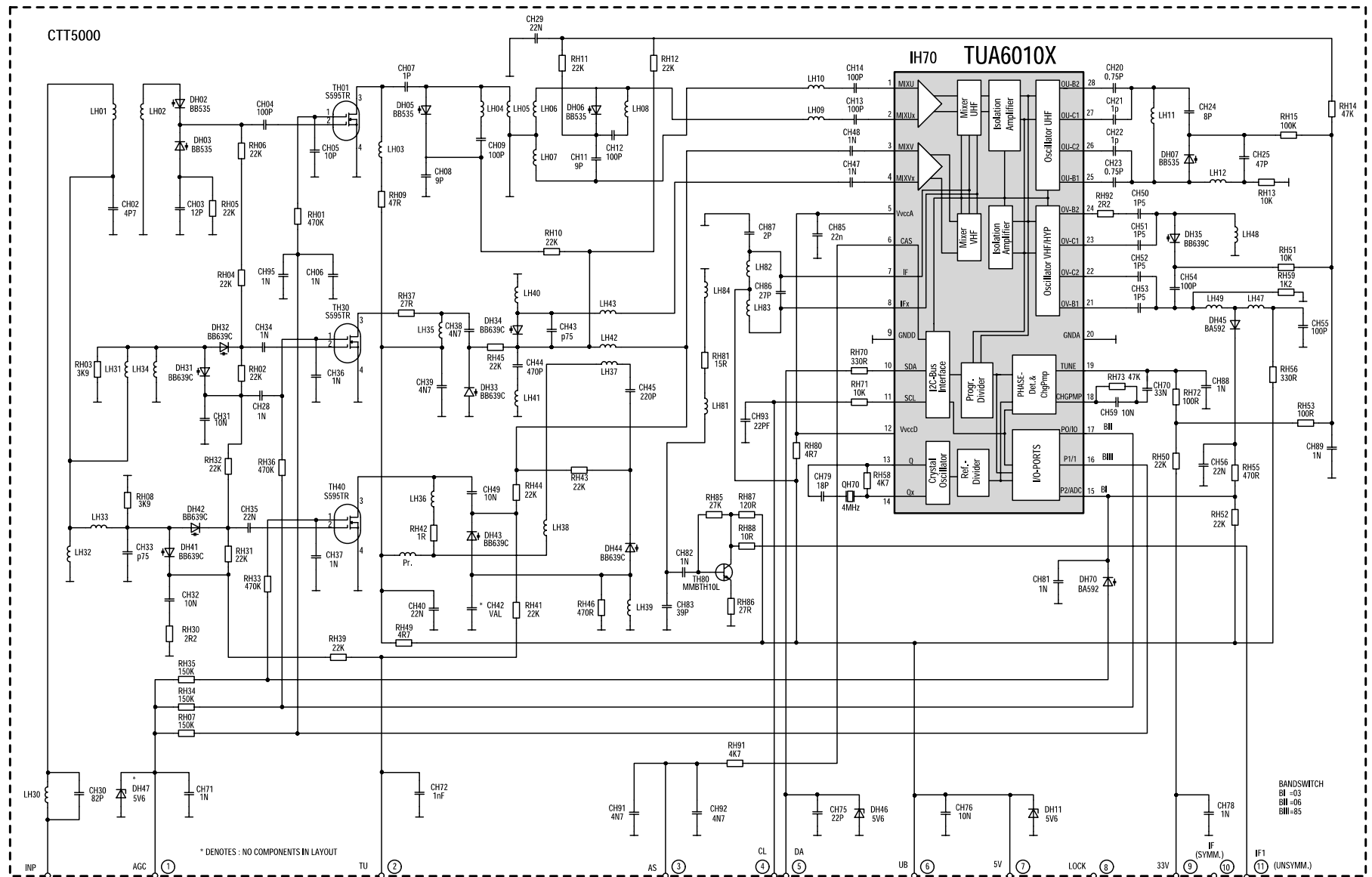


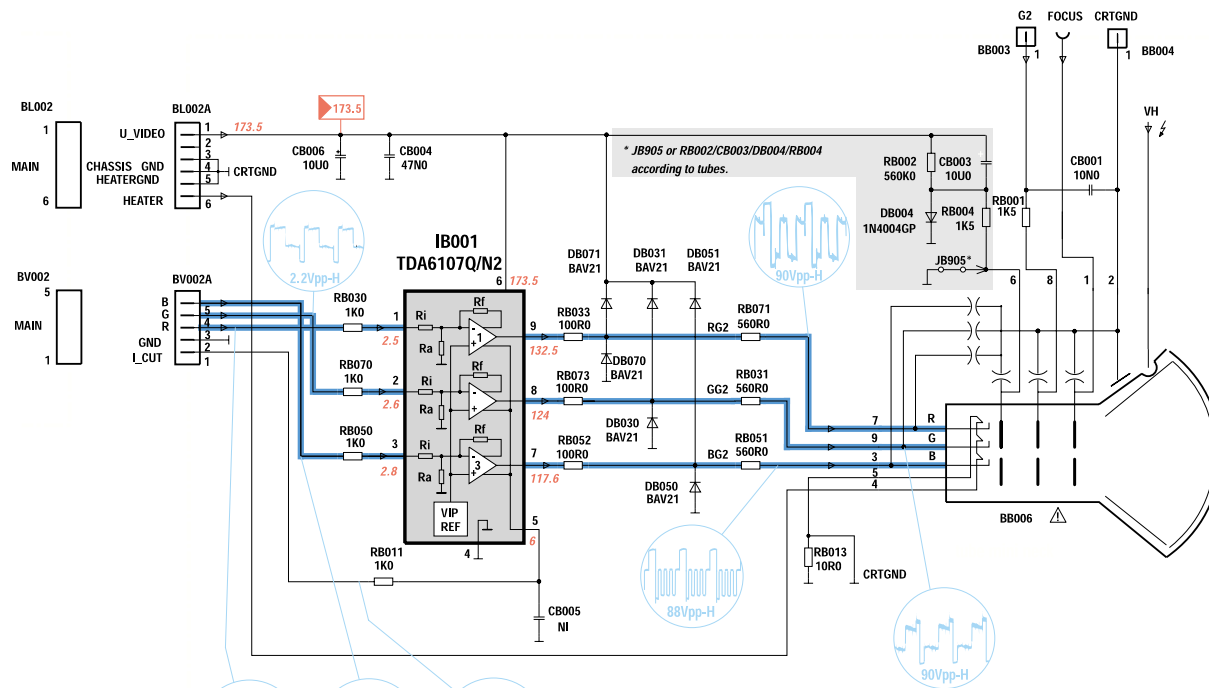
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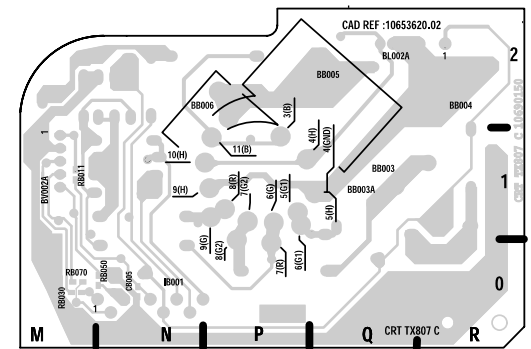
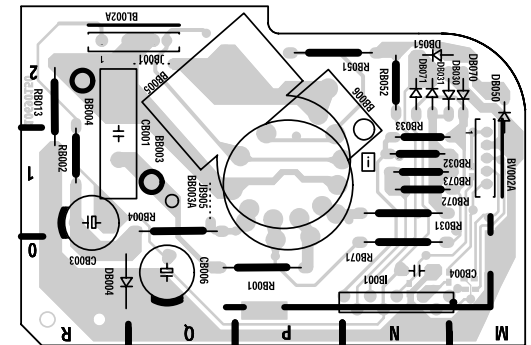
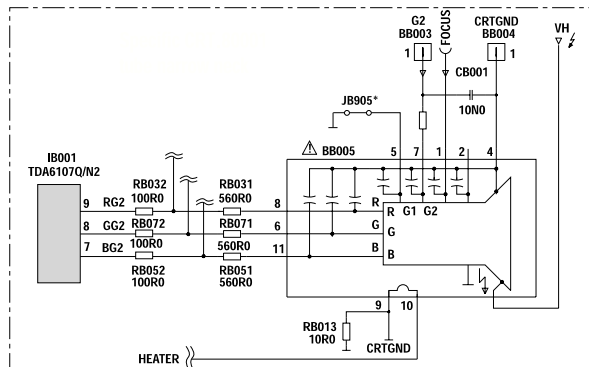
# TUNER CTT5000

(FREQUENCY SYNTHESIS - SYNTHESE DE FREQUENCE - FREQUENZSYNTHESE - SINTESI DI FREQUENZA - SINTESIS DE FRECUENCIA )



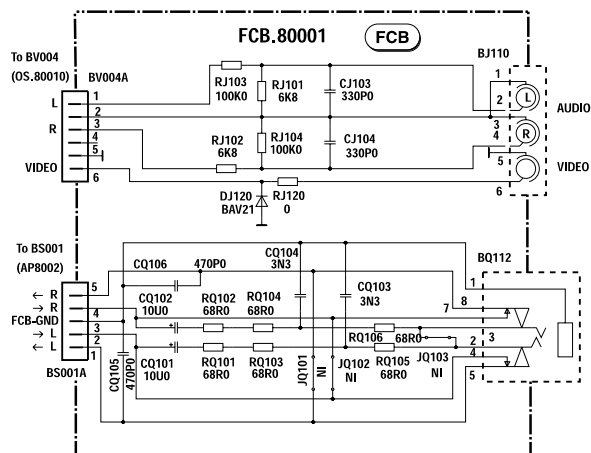


⚠ Safety Part  
 When repairing, use original part only  
 Pièce de sécurité  
 N'utilisez que les pièces d'origine  
 Sicherheitsbauteil  
 Bei Ersatz nur Originalteil verwenden



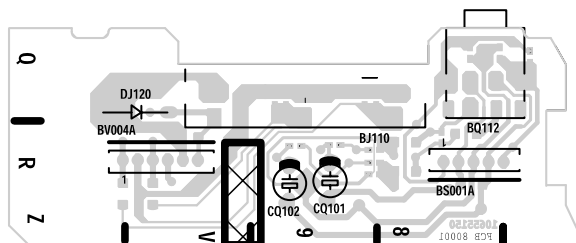
**FRONT CONNECTOR BOARD -  
PRISES EN FACADE ET INTERCONNEXION DU CLAVIER -  
FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE -  
PLÁTINA MANDOS FRONTAL**

**FCB.80001.00**

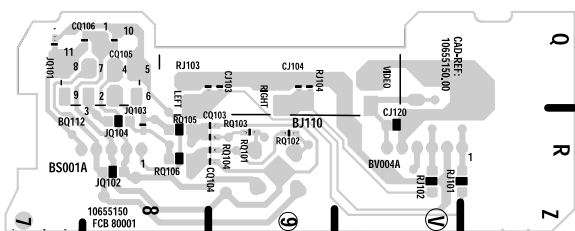


**FCB.80001.00**

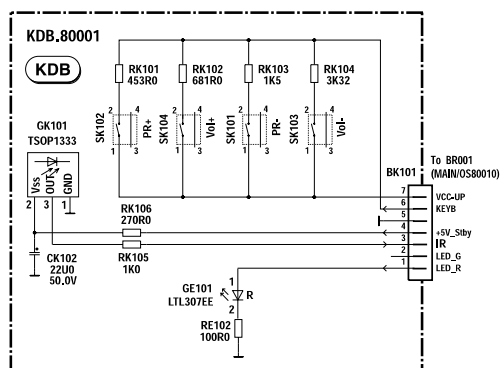
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



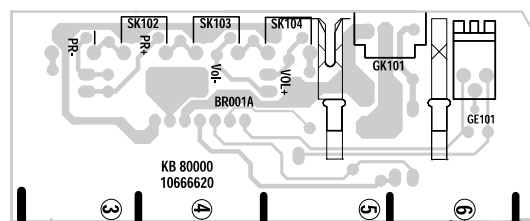
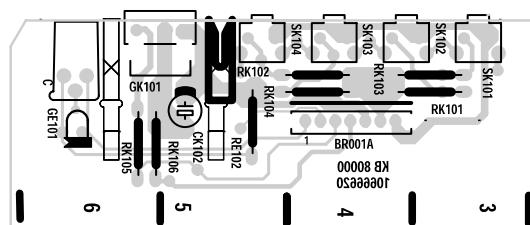
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



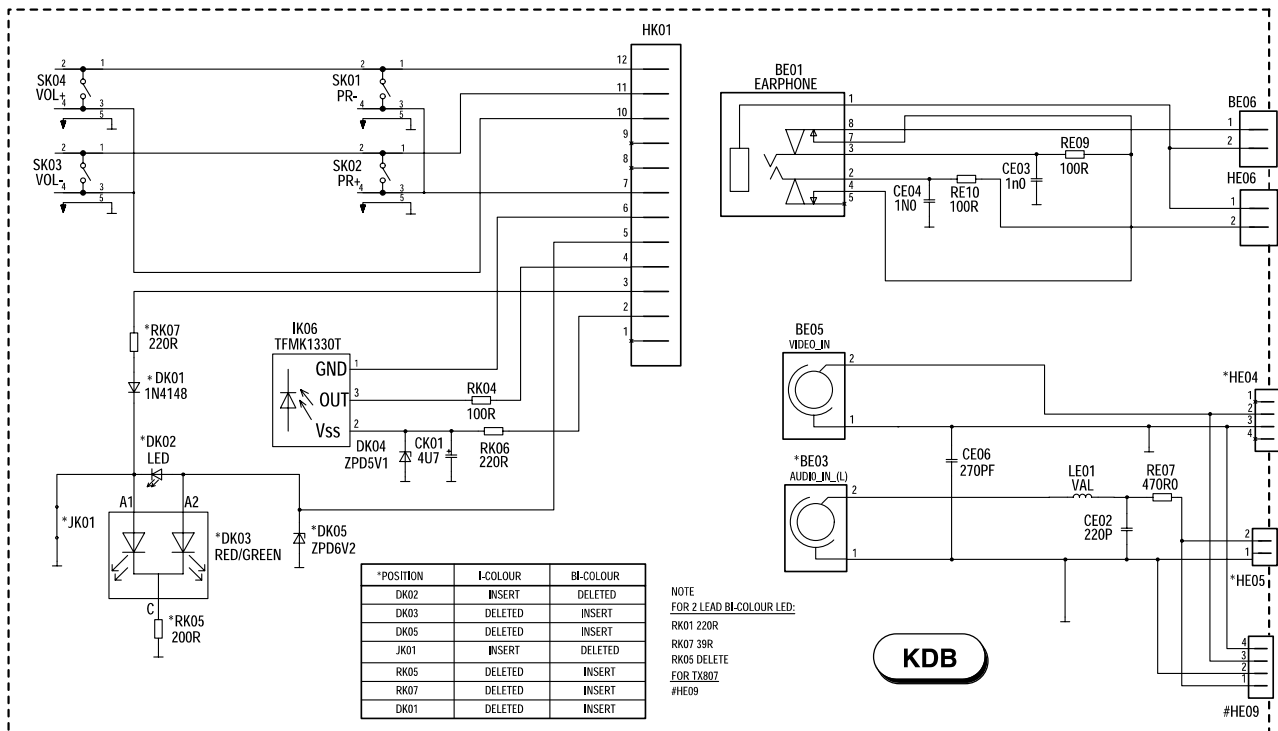
**KDB.80001.00**



**KDB.80001.00**

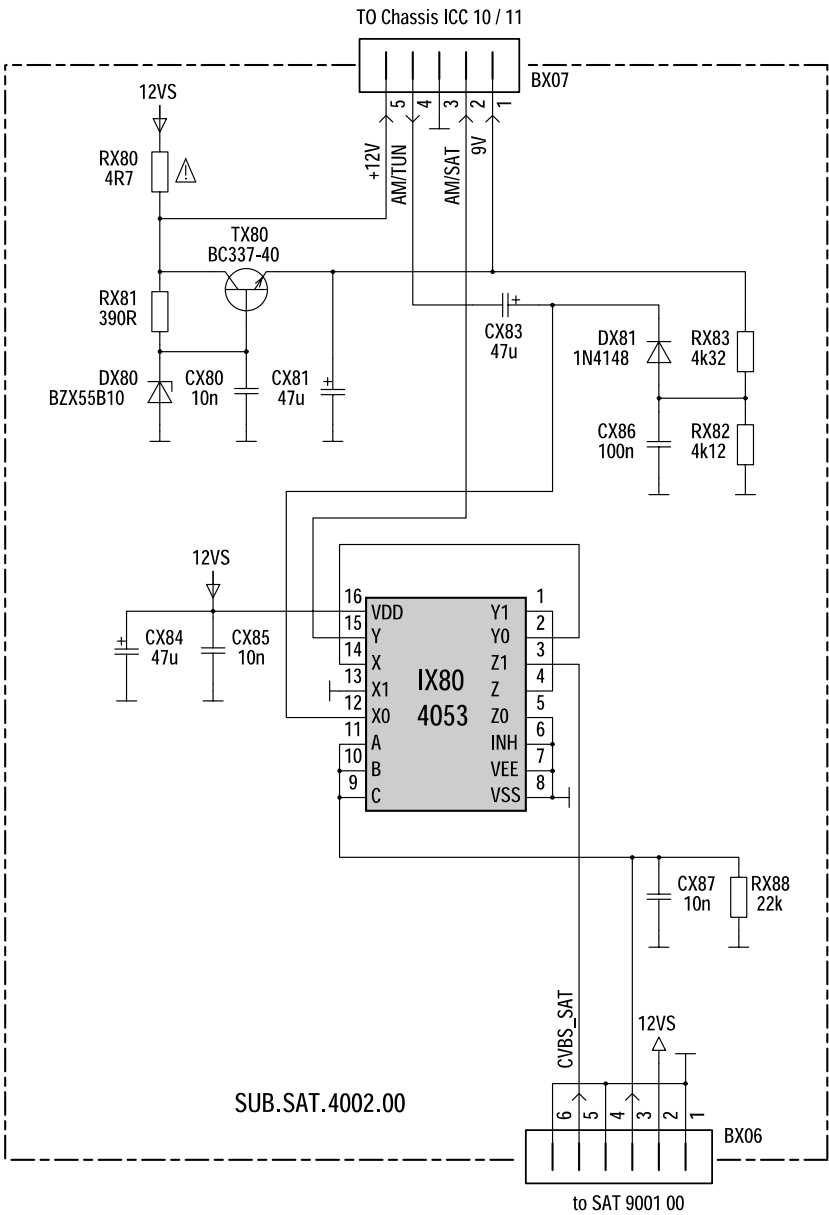


# KEYBOARD MODULE - PLATINE CLAVIER - TASTATURPLATTE - PISATRA COMANDI - PLATINA TECLADO

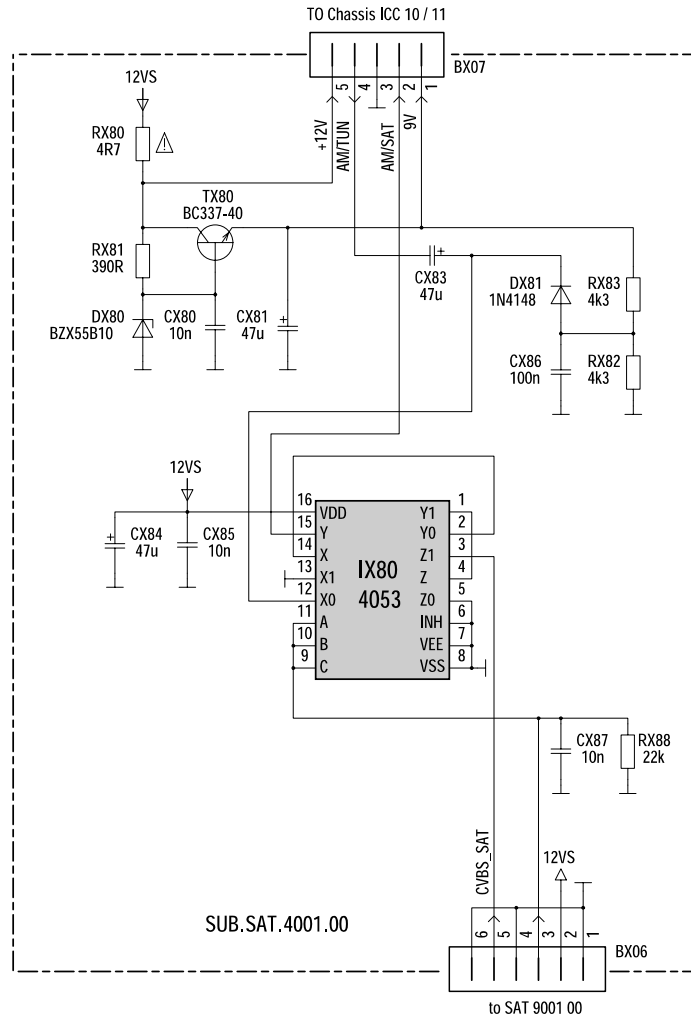




SUB SATELLITE MODULE - SOUS MODULE SATELLITE - SUBMODUL SATELLIT  
MODULO SATELLITE - MÓDULO SATELLITE

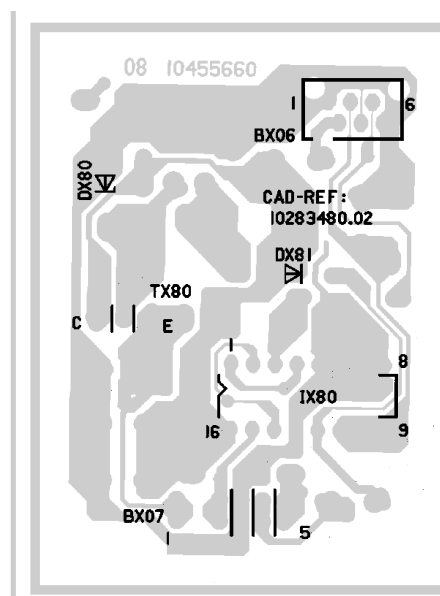
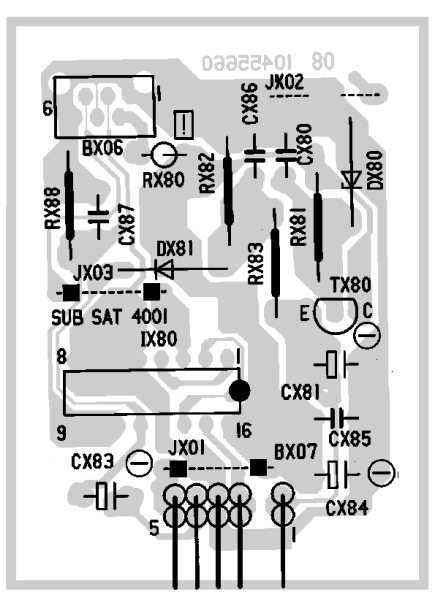


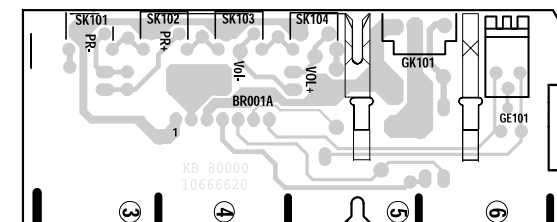
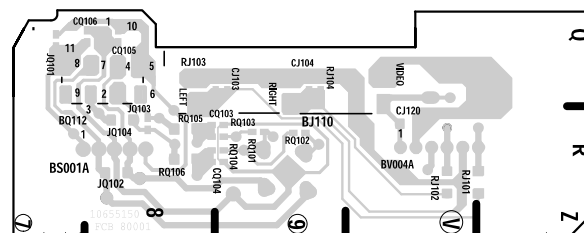
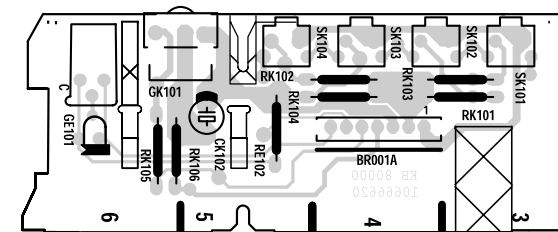
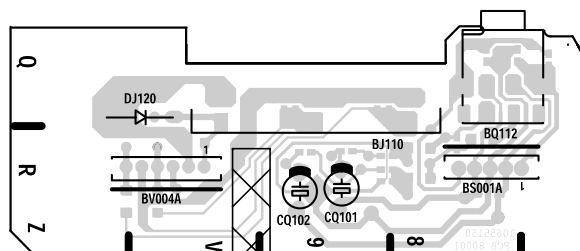
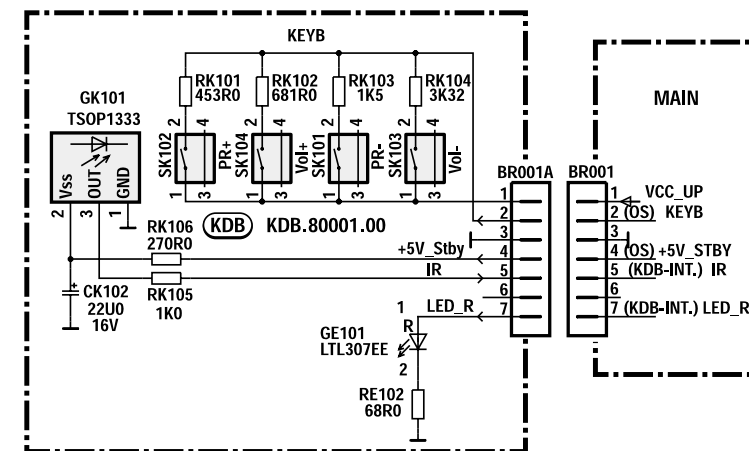
**SUB SATELLITE MODULE - SOUS MODULE SATELLITE - SUBMODUL SATELLIT  
MODULO SATELLITE - MÓDULO SATÉLITE**



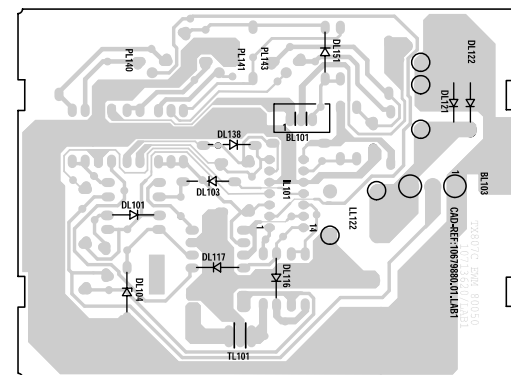
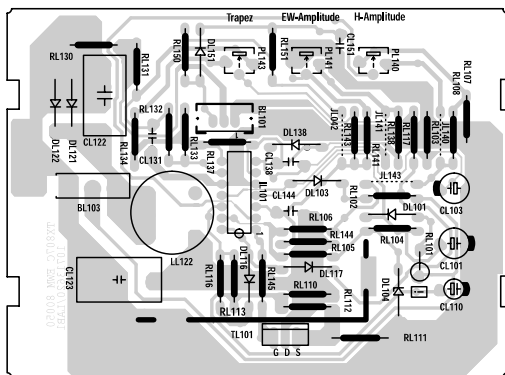
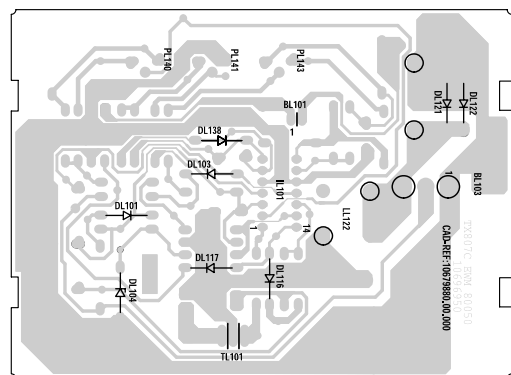
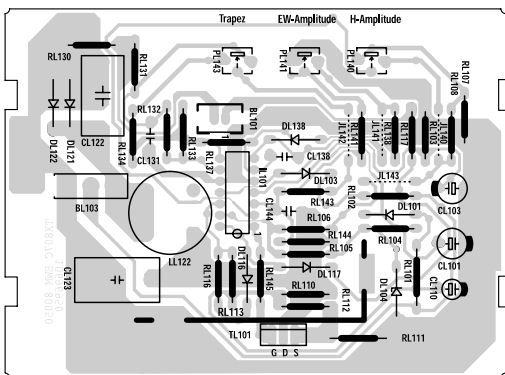
COMPONENT SIDE - COTE ELEMENTS  
BESTÜCKUNGSSEITE  
LATO COMPONENTI - LADO COMPONENTES

SOLDER SIDE - COTE CUIVRE  
LÖTSEITE  
LATO SALDATURE - LADO DEL COBRE

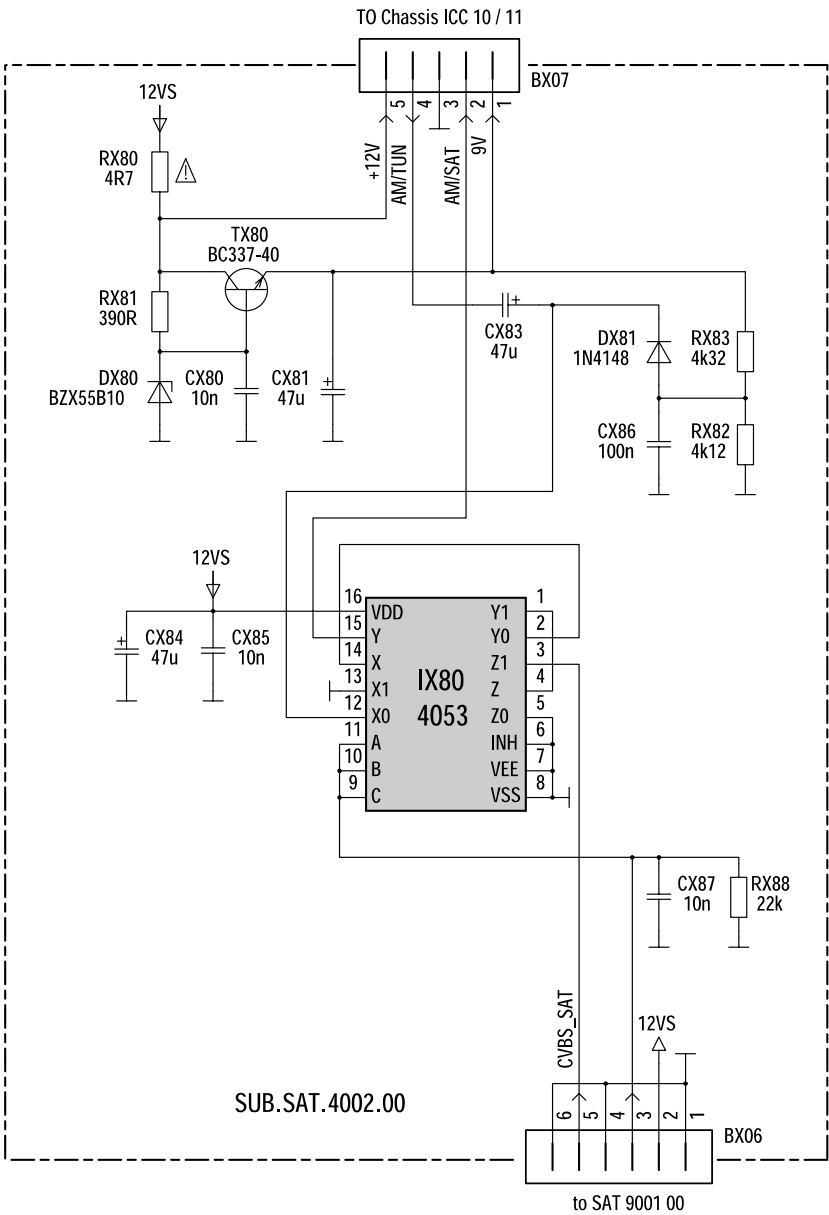




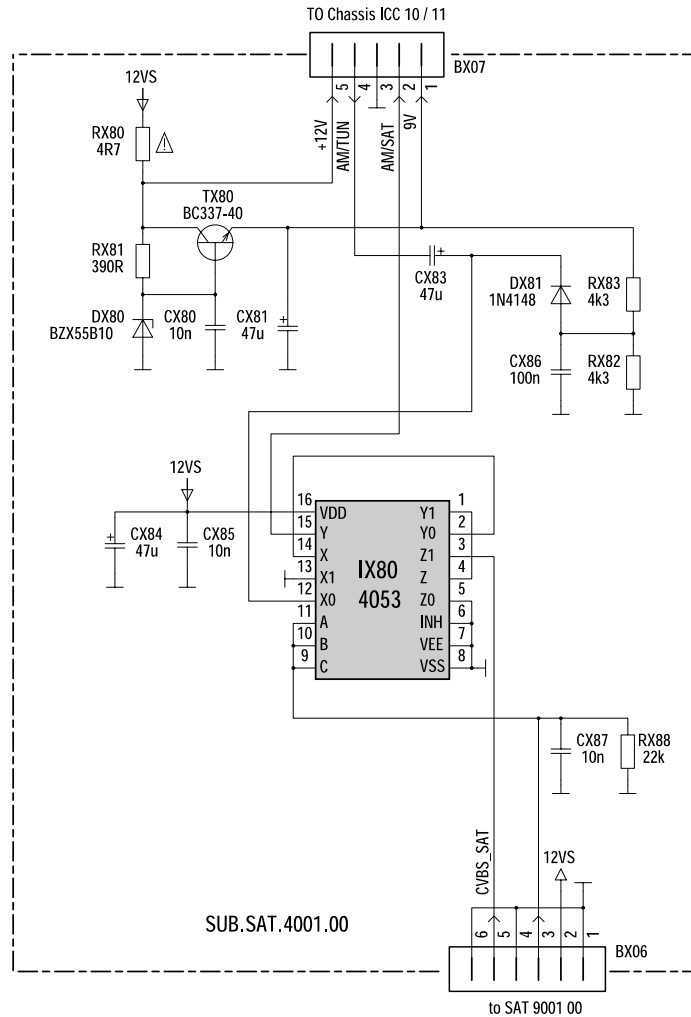




SUB SATELLITE MODULE - SOUS MODULE SATELLITE - SUBMODUL SATELLIT  
MODULO SATELLITE - MÓDULO SATELLITE

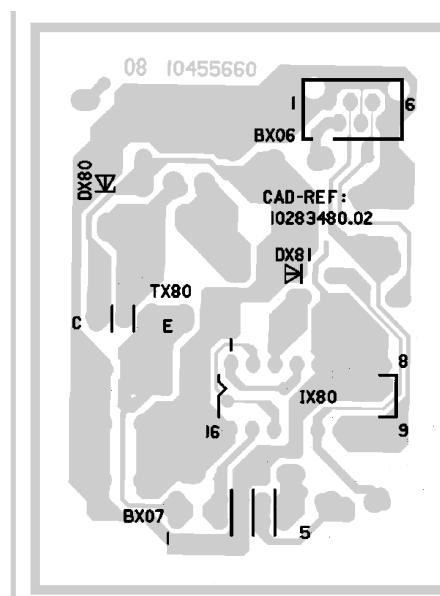
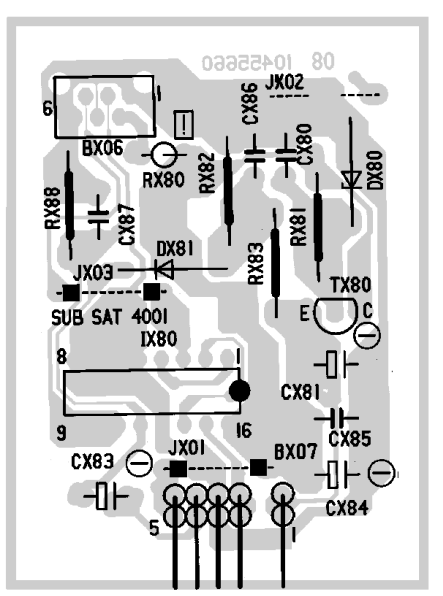


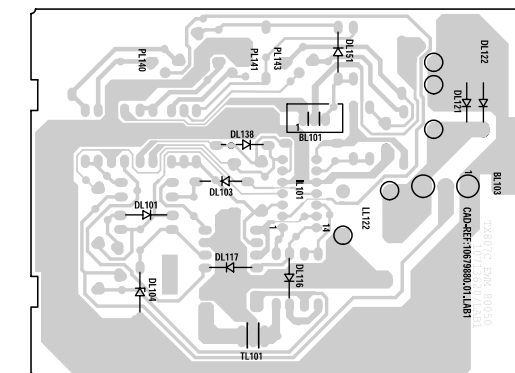
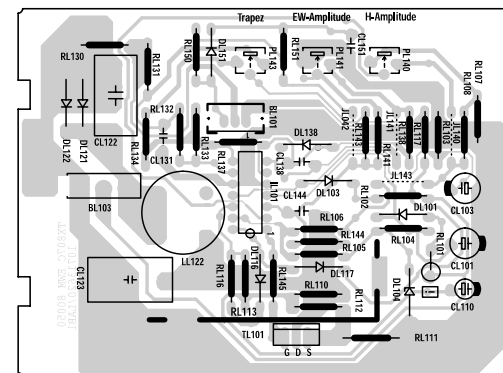
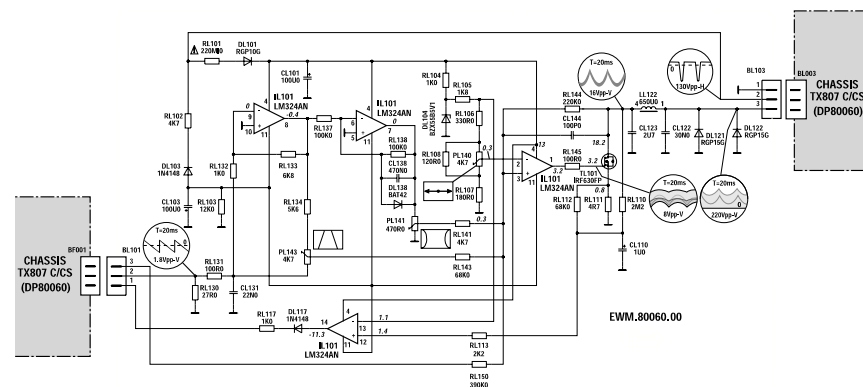
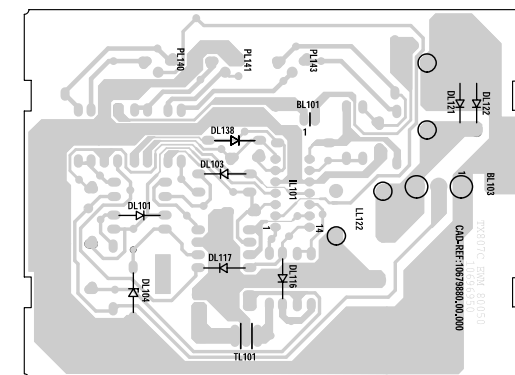
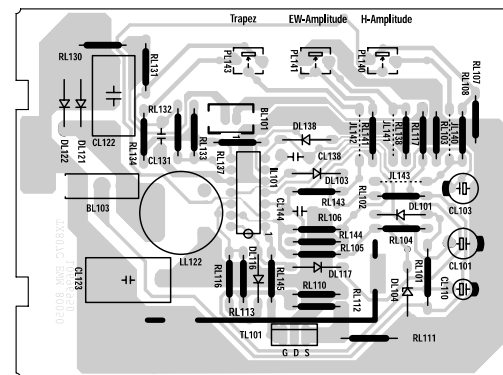
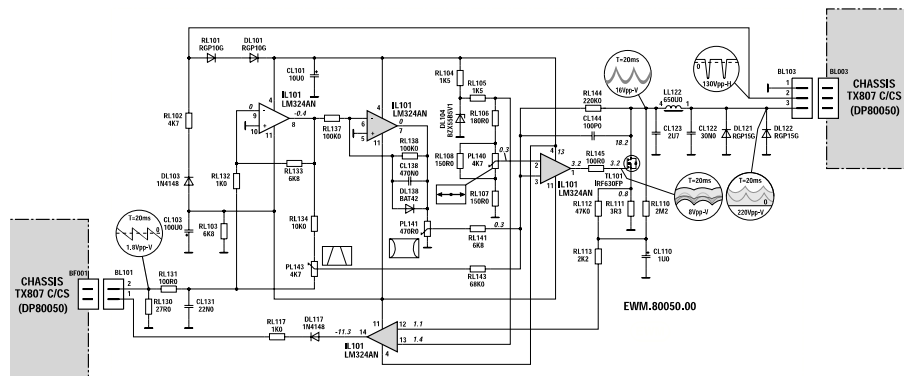
**SUB SATELLITE MODULE - SOUS MODULE SATELLITE - SUBMODUL SATELLIT  
MODULO SATELLITE - MÓDULO SATÉLITE**



COMPONENT SIDE - COTE ELEMENTS  
BESTÜCKUNGSSEITE  
LATO COMPONENTI - LADO COMPONENTES

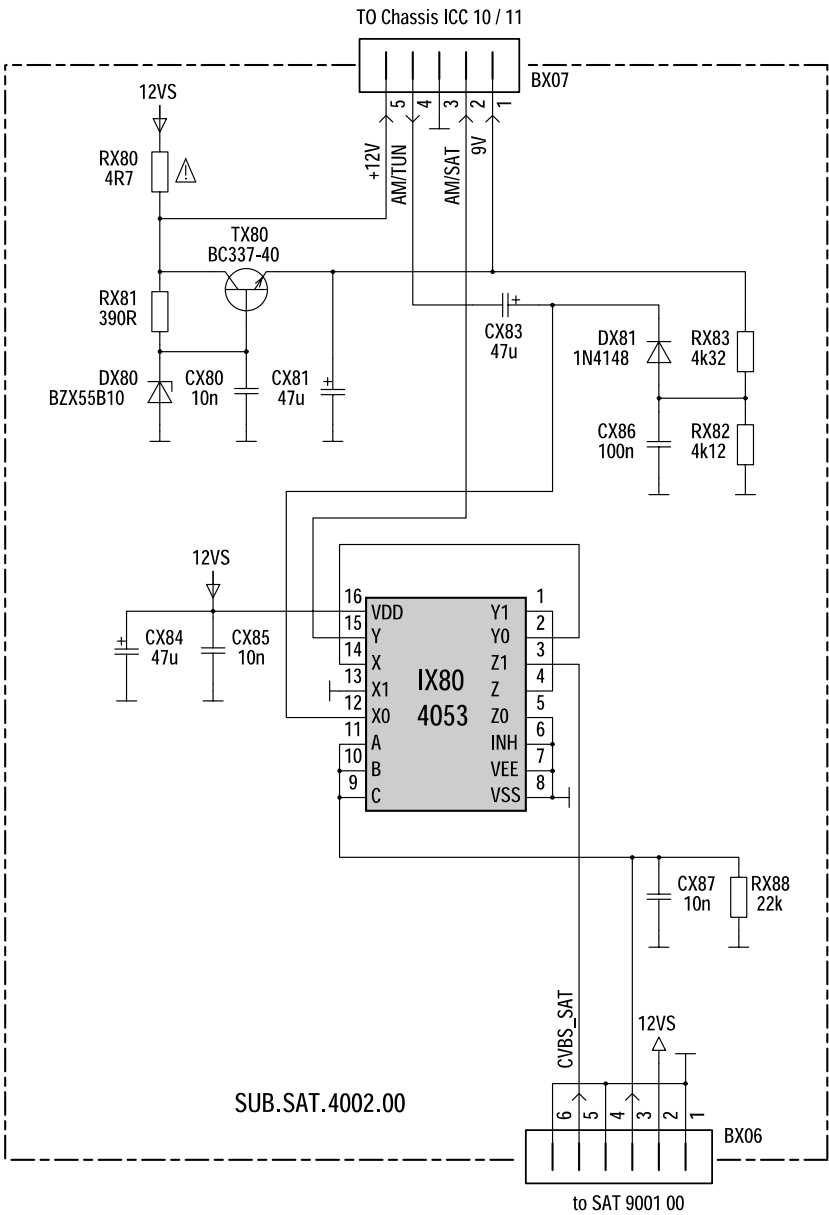
SOLDER SIDE - COTE CUIVRE  
LÖTSEITE  
LATO SALDATURE - LADO DEL COBRE



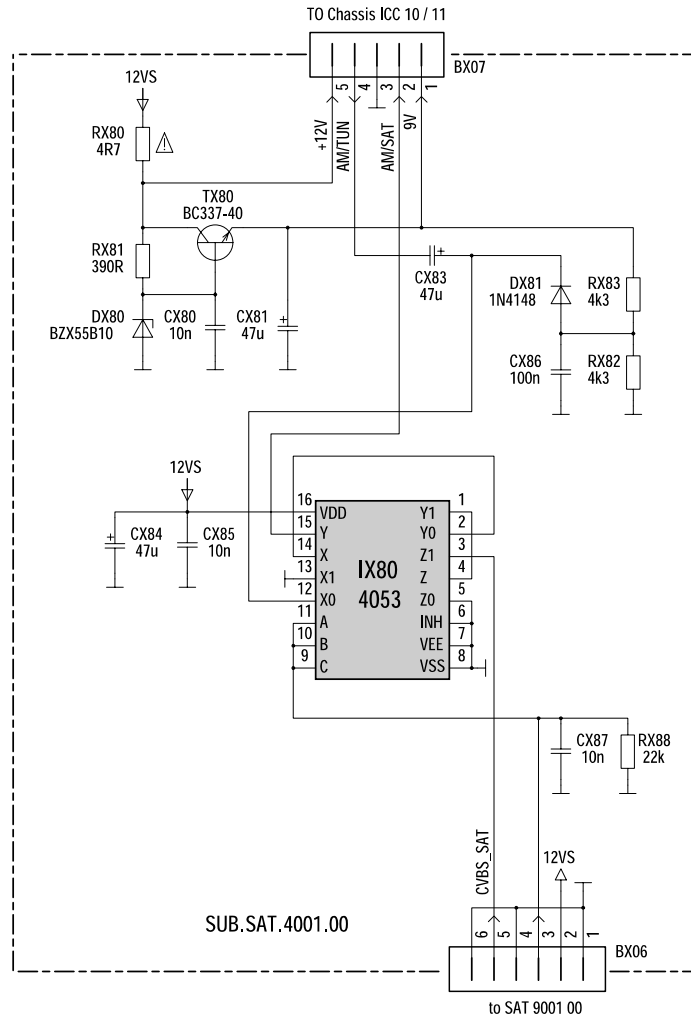




SUB SATELLITE MODULE - SOUS MODULE SATELLITE - SUBMODUL SATELLIT  
MODULO SATELLITE - MÓDULO SATELLITE

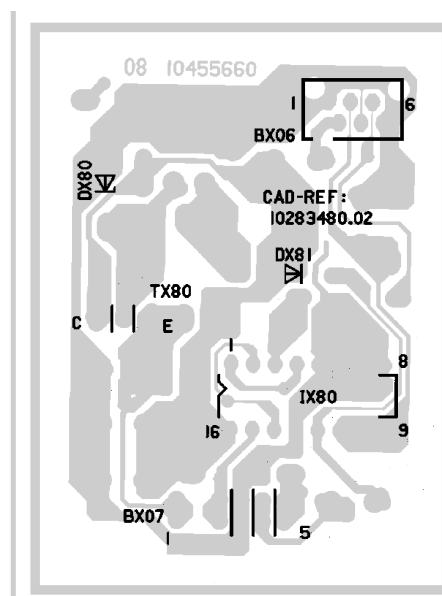
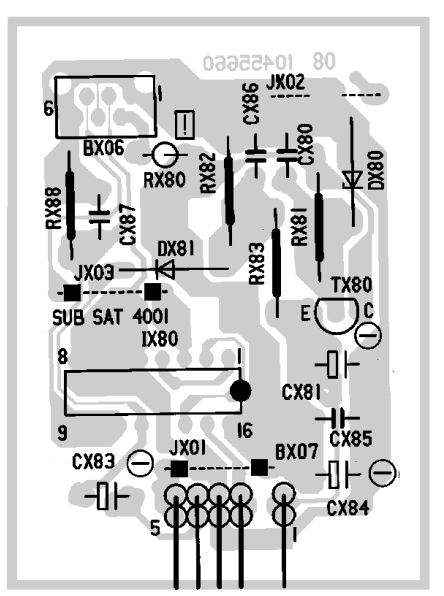


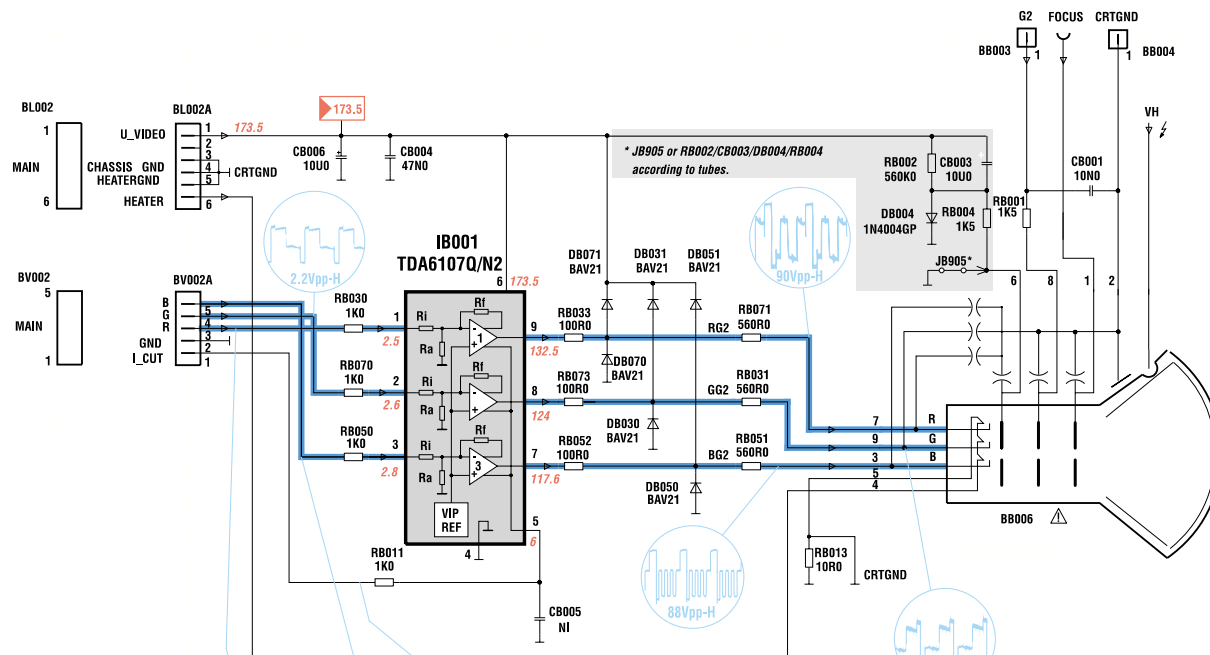
**SUB SATELLITE MODULE - SOUS MODULE SATELLITE - SUBMODUL SATELLIT  
MODULO SATELLITE - MÓDULO SATÉLITE**



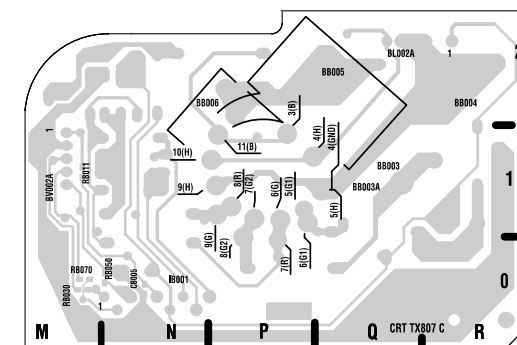
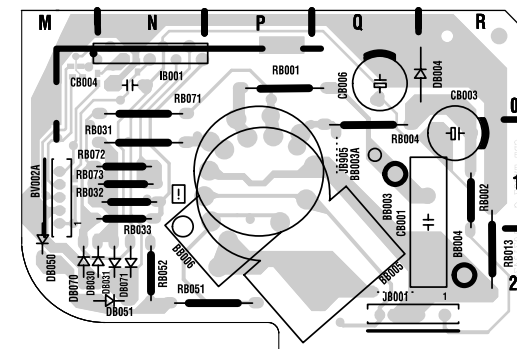
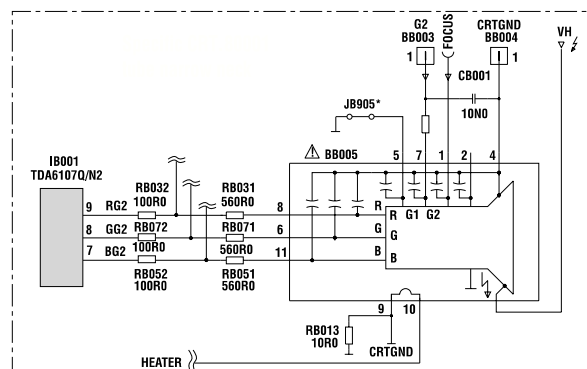
COMPONENT SIDE - COTE ELEMENTS  
BESTÜCKUNGSSEITE  
LATO COMPONENTI - LADO COMPONENTES

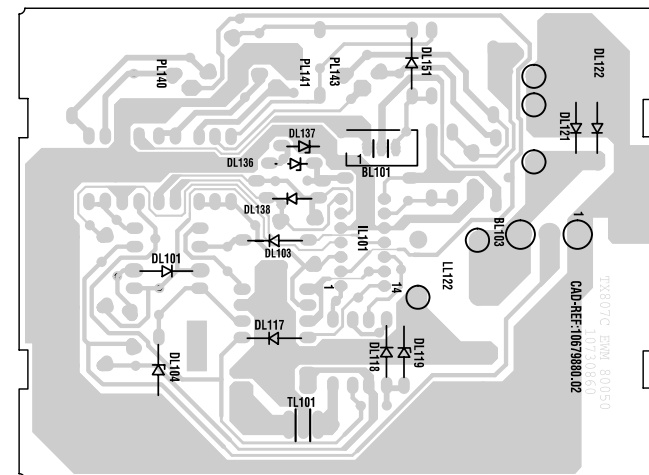
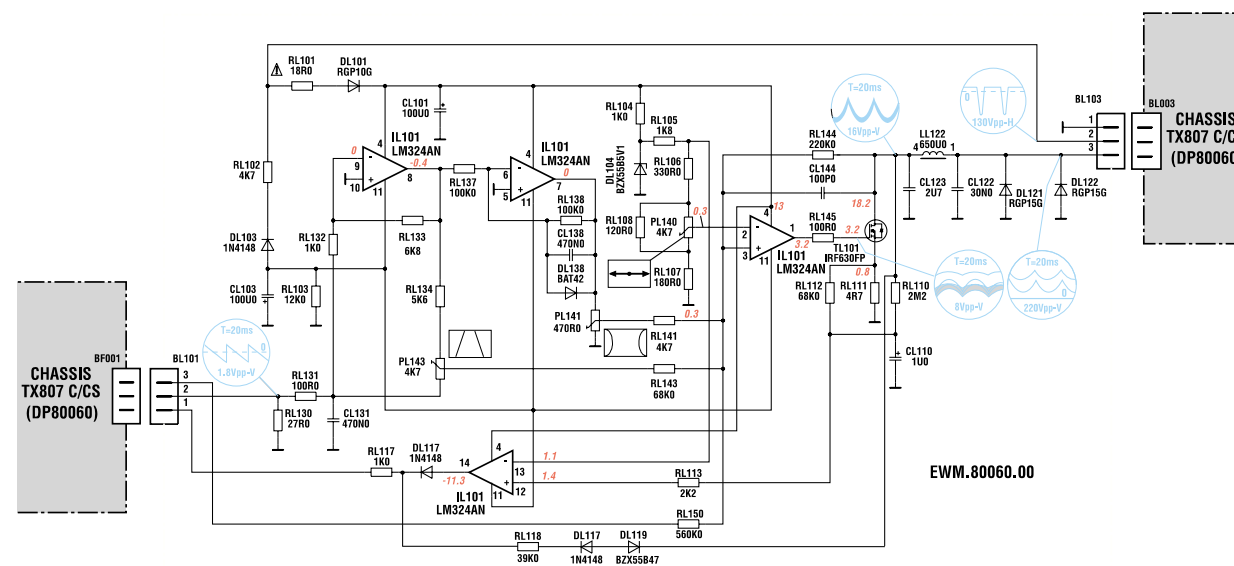
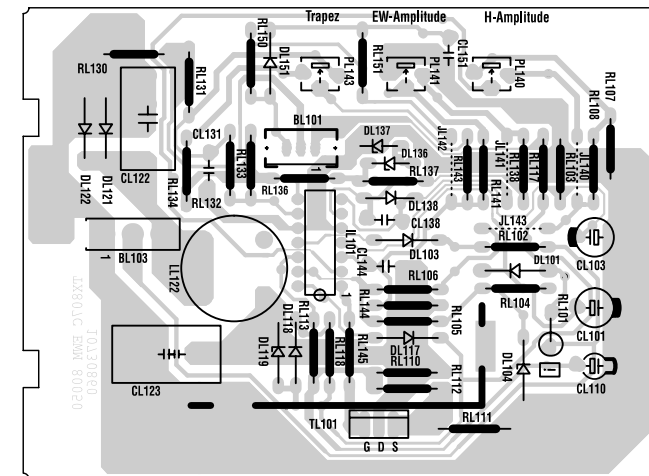
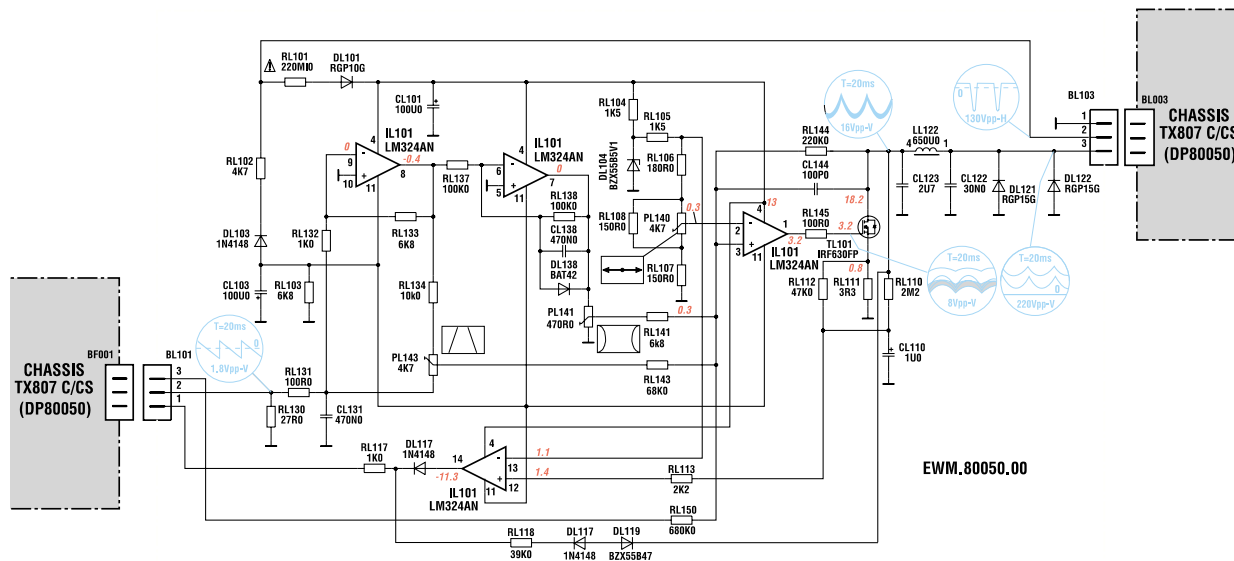
SOLDER SIDE - COTE CUIVRE  
LÖTSEITE  
LATO SALDATURE - LADO DEL COBRE

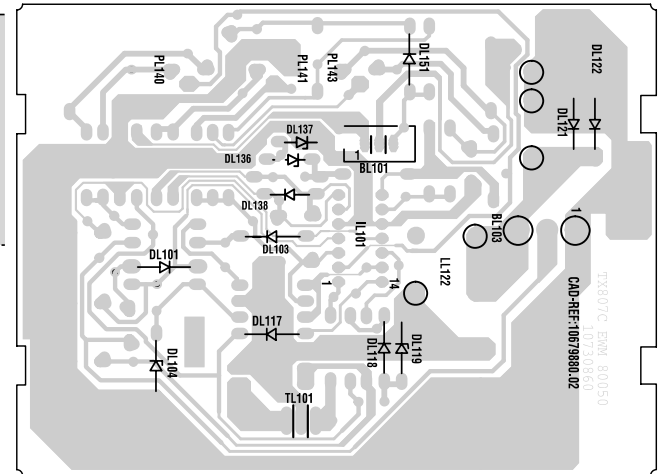
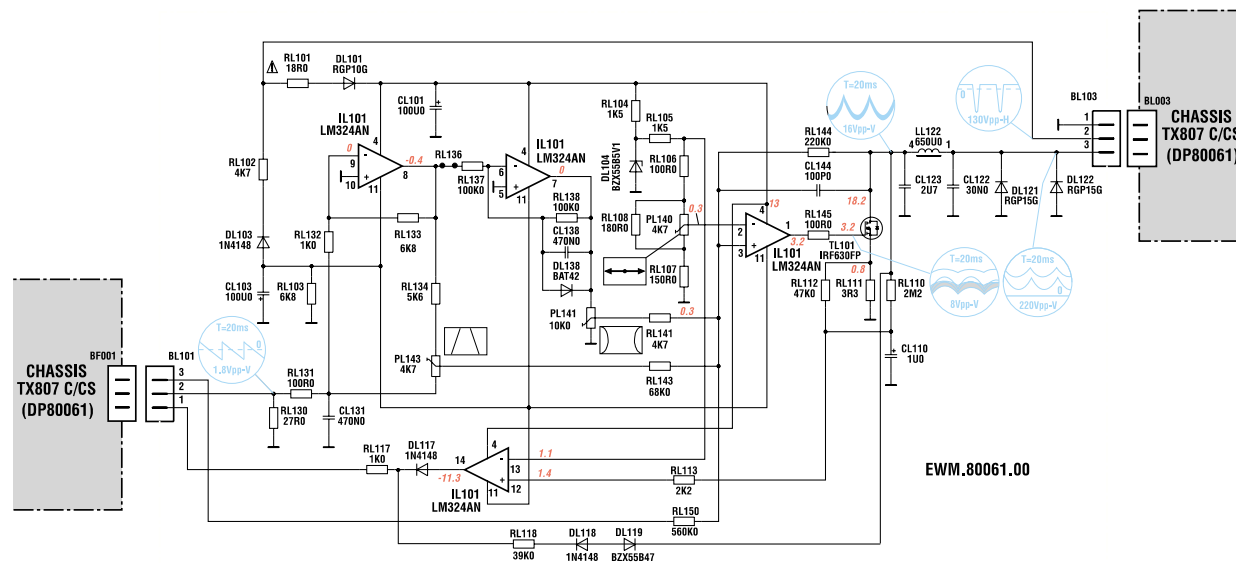
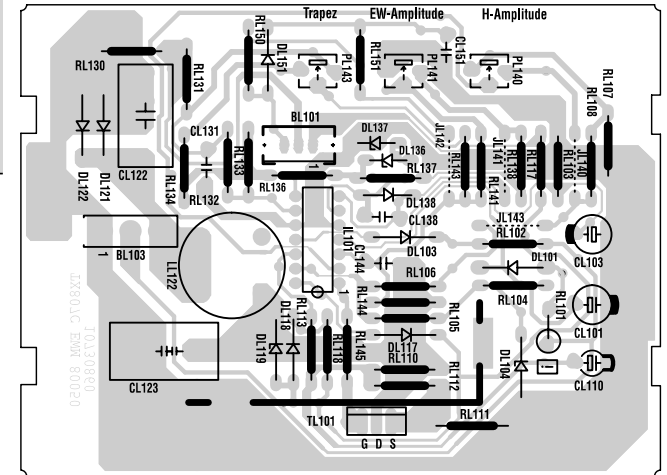
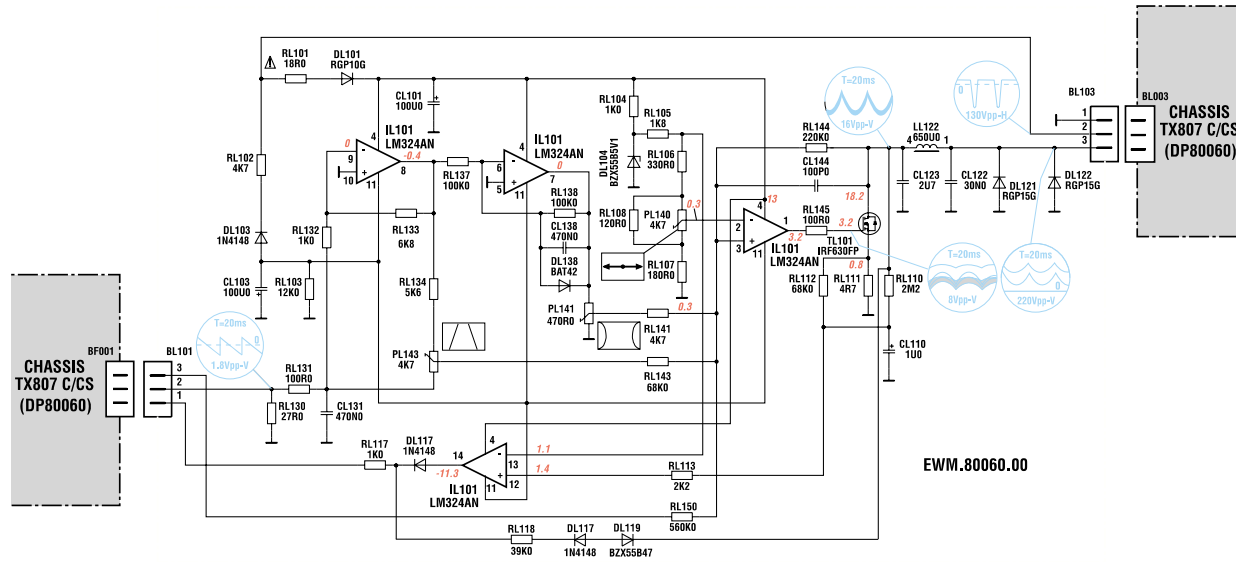


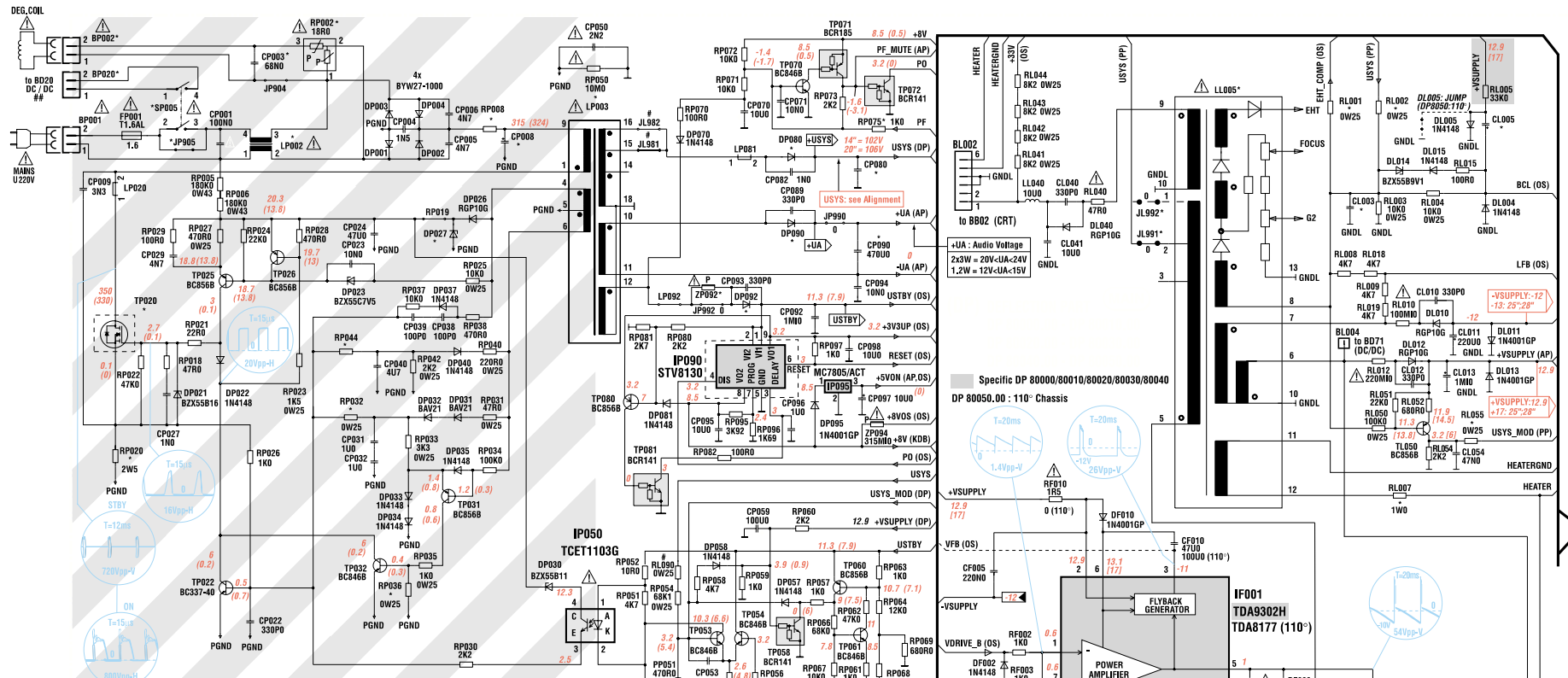


**Safety Part**  
When repairing, use original part only  
Pièce de sécurité  
N'utilisez que les pièces d'origine  
Sicherheitsbauteil  
Bei Ersatz nur Originalteil verwenden







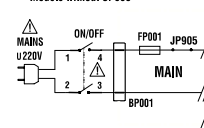


|         | PP 8000D<br>PP 8002 | PP 8001    | PP 8003    | PP 8005    | PP 8007    |
|---------|---------------------|------------|------------|------------|------------|
| BP002   | X                   | X          | X          | X          | X          |
| BP20/99 | -                   | -          | -          | -          | -          |
| CP003   | X                   | X          | X          | X          | X          |
| CP008   | 6800                | 10000      | 10000      | 15000      | 6800       |
| CP080   | 10000               | 10000      | 10000      | 22000      | 10000      |
| CP090   | 16.0V               | 25.0V      | 25.0V      | 25.0V      | 16.0V      |
| DP027   | BZX55B27            | BZX55B27   | BZX55B27   | BZX55B30   | BZX55B27   |
| DP030   | MUR160              | MUR160     | MUR160     | MUR160     | MUR160     |
| DP090   | RG10G               | MUR120     | MUR120     | RG10G      | RG10G      |
| DP092   | MUR120              | MUR120     | MUR120     | EGP100     | EGP100     |
| JP005   | X                   | -          | X          | X          | X          |
| JP092   | X                   | -          | X          | X          | X          |
| LP002   | 60M0                | 60M0       | 60M0       | 25M0       | 12M0       |
| LP003   | 106S8360            | 106S6090   | 106S6090   | 106S3580   | 106S5630   |
| RP002   | X                   | X          | X          | X          | X          |
| RP008   | SR12.5W             | SR12.5W    | SR12.5W    | 4R7/3W     | SR12.5W    |
| RP020   | 1R0                 | 1R0        | 1R0        | 680M0      | 1R0        |
| RP032   | 33K0                | 33K0       | 33K0       | 27K0       | 33K0       |
| RP036   | 2K2                 | 2K2        | 2K2        | 1K8        | 2K2        |
| RP044   | 12K0                | 10K0       | 10K0       | 7K5        | 12K0       |
| RP075   | X                   | -          | -          | X          | X          |
| SP005   | X                   | -          | -          | X          | X          |
| TP020   | STP3NB90FP          | STP3NB90FP | STP3NB90FP | STP3NB90FP | STP3NB90FP |
| TP092   | -                   | MP315      | MP315      | MP315      | -          |

X : Inserted - : Not inserted

|                   | CL003 | CL005 | CL021 | CL022 | CL024 | CL033 | CL021 | LL005    | RF007 | RF010 | RL001 | RL002 | RL007 | RL034 | RL055 | RL926 | RL991 | RL992 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| DP 30000 90° 4/3  | 10N   | 4U7   | 6N6   | 330P  | 390N0 | 22N0  | -     | 106S8460 | 1R82  | 1R5   | 82K0  | 120K0 | 2R2   | 47R0  | 68K0  | X     | -     | X     |
| DP 80010 90° 4/3  | 10N   | 4U7   | 6N6   | 330P  | 440N0 | 22N0  | -     | 106S8340 | 1R82  | 1R5   | 82K0  | 100K0 | 2R2   | 39R0  | 1W0   | 68K0  | X     | X     |
| DP 80020 90° 4/3  | 10N   | 4U7   | 7N6   | -     | 330N0 | 22N0  | -     | 106S8470 | 1R5   | 1R5   | 82K0  | 91K0  | 2R2   | 33R0  | 1W0   | 68K0  | X     | X     |
| DP 80030 90° 4/3  | 10N   | 4U7   | 7N6   | -     | 440N0 | 22N0  | -     | 106S8470 | 1R5   | 1R5   | 82K0  | 82K0  | 1R0   | 33R0  | 1W0   | 68K0  | X     | X     |
| DP 80040 90° 4/3  | 10N   | 4U7   | 8N3   | -     | 440N0 | 22N0  | -     | 106S4690 | 1R21  | 1R5   | 91K0  | 91K0  | 1R0   | 27R0  | 1W0   | 68K0  | -     | X     |
| DP 80050 110° 4/3 | 22N   | 2U2   | 14N6  | -     | 440N0 | 100N0 | X     | 106S4690 | 1R21  | 0     | 220K0 | 91K0  | 1R0   | 10R0  | 0W43  | 220K0 | -     | X     |

#### Models without SP005



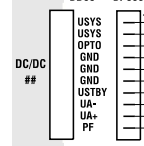
(0.7) : Standby

Use isolating mains transformer.  
Utiliser un transformateur isolateur du secteur.  
Einen Trenntrafo verwenden.  
Utilizzare un trasformatore isolatore da rete.

Part of board connected to mains supply.  
Partie du chassis reliée au secteur.  
Primärseite des Netzteils.  
Parte dello chassis collegata alla rete.  
Parte del chassis conectada a la red.

Note :  
Power Supply primary circuit measurements.  
- Use only (PGND) connection point.  
Attention :  
Mesure dans la partie primaire de l'alimentation  
- Utiliser la masse du bloc alimentation (PGND).  
Achtung :  
Bei Messungen im Primärnetzteil  
- Primärnetzteilmasse verwenden (PGND).  
Attenzione :  
misura nell'alimentatore primario  
- usare massa alimentazione primario (PGND).  
Cuidado :  
Medida en el bloque de alimentación  
- Utilizar la masa del bloque de alimentación (PGND).

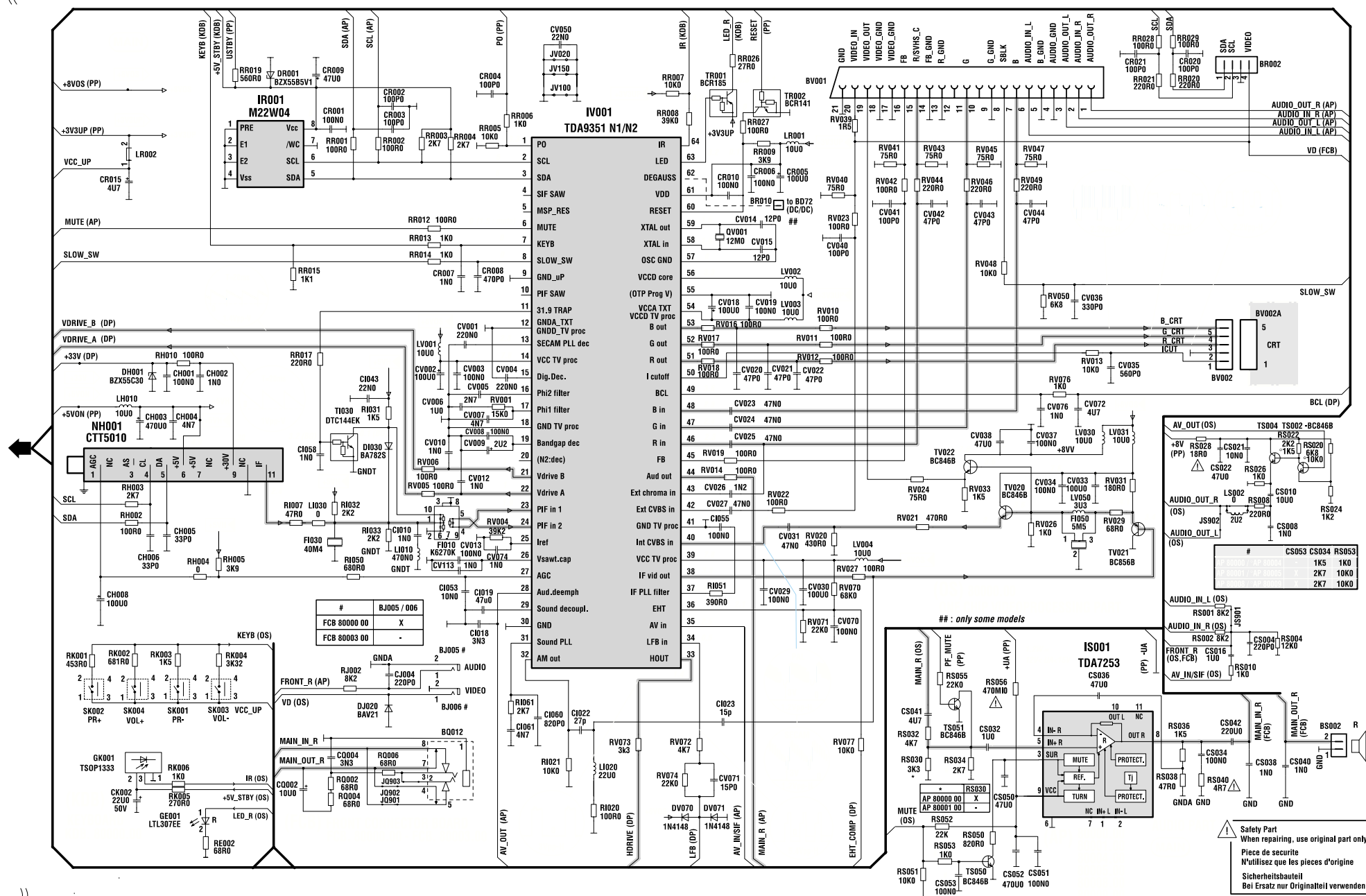
# = value see DP 8... partlists  
## : only some models  
BD90  
BD999\*



DC/DC

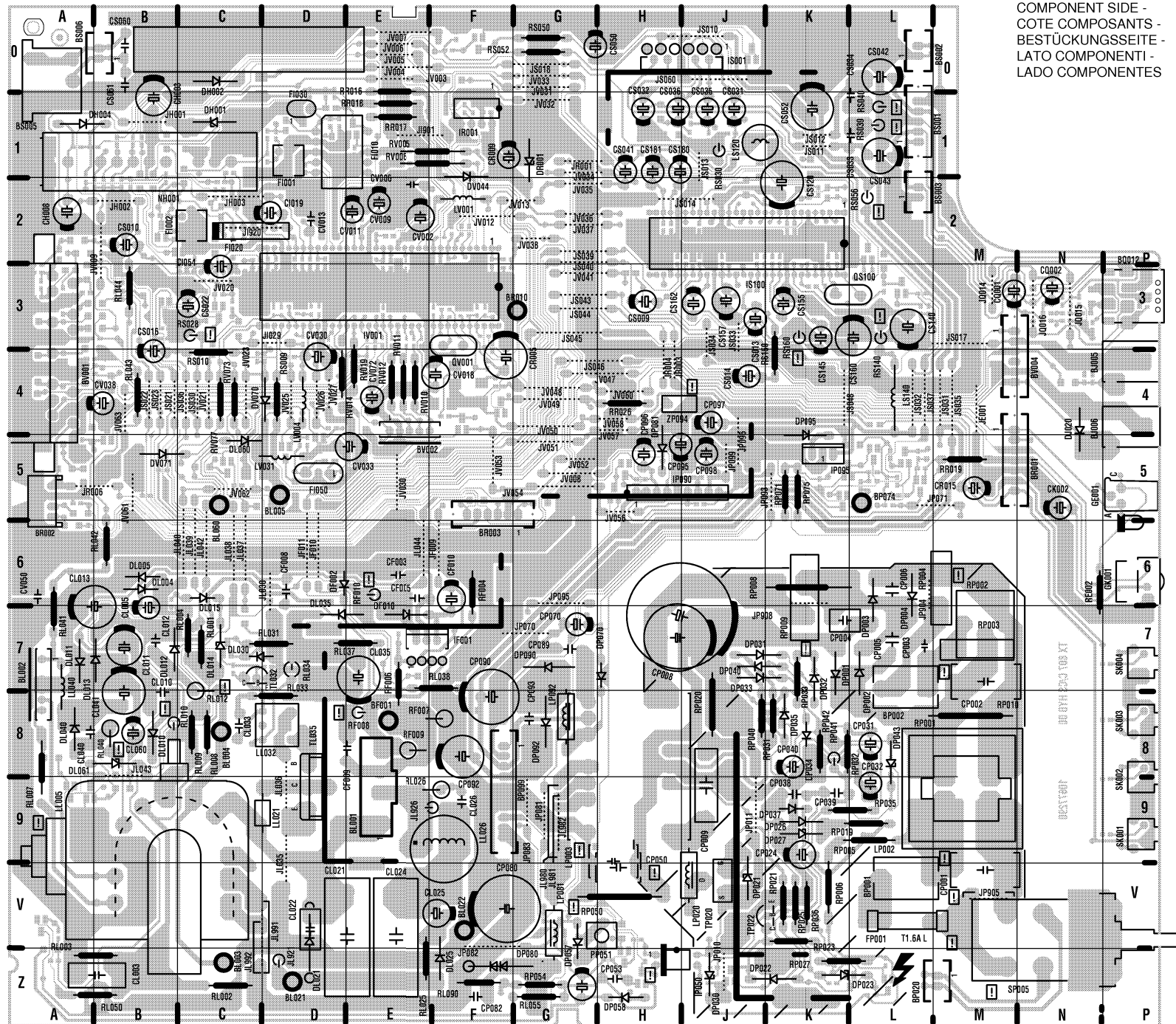
(0.7) : Standby  
(17) : Specific 110° (25°-28°)

Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.  
Le remplacement des éléments de sécurité (repérés avec le symbole ) par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.  
Wenn Sicherheitssteile (mit dem Symbol ) gekennzeichnet durch nicht normgerechte Teile ersetzt werden, erlischt die Haftung des Herstellers.





COMPONENT SIDE -  
COTE COMPOSANTS -  
BESTÜCKUNGSSEITE -  
LATO COMPONENTI -  
LADO COMPONENTES

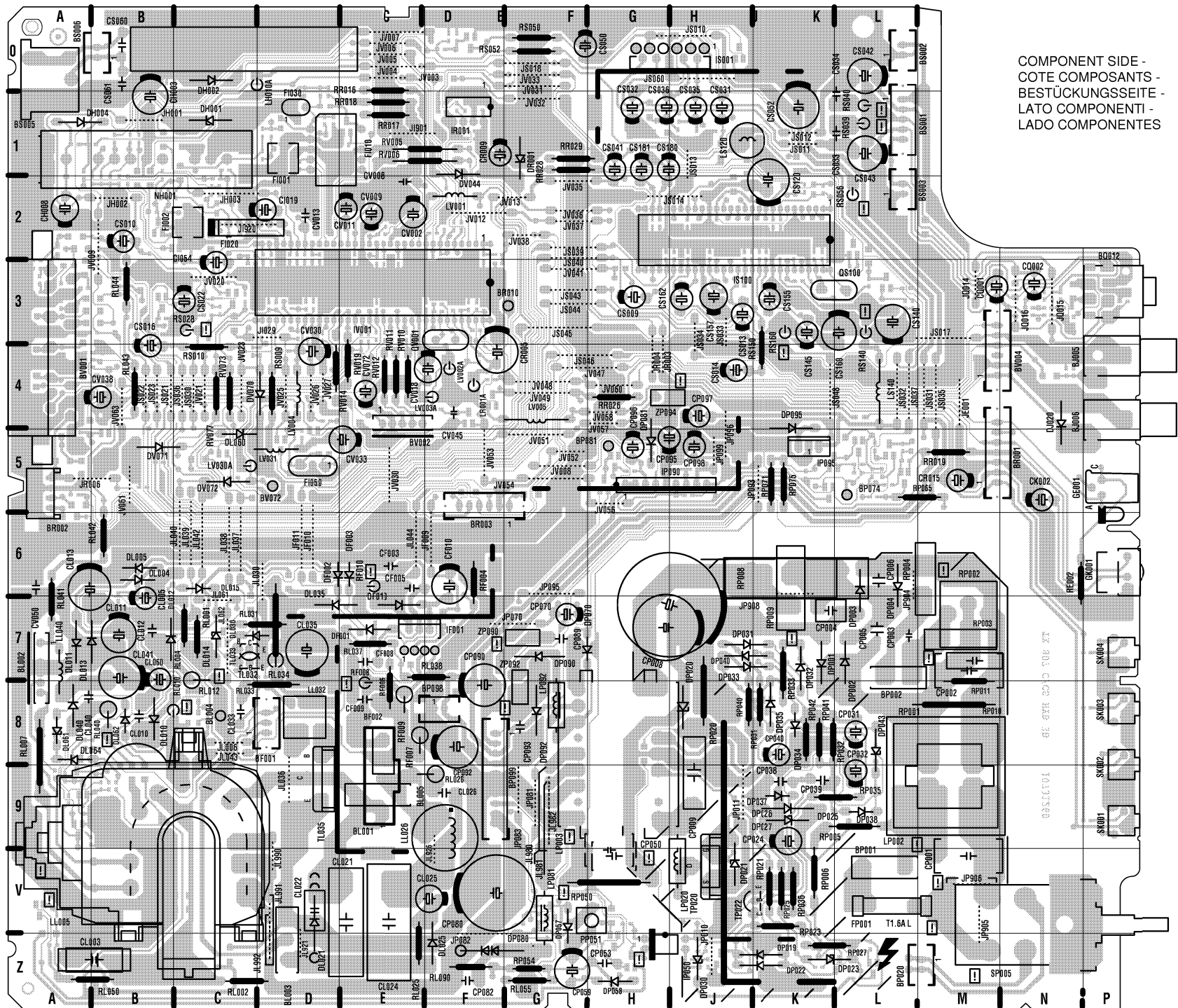


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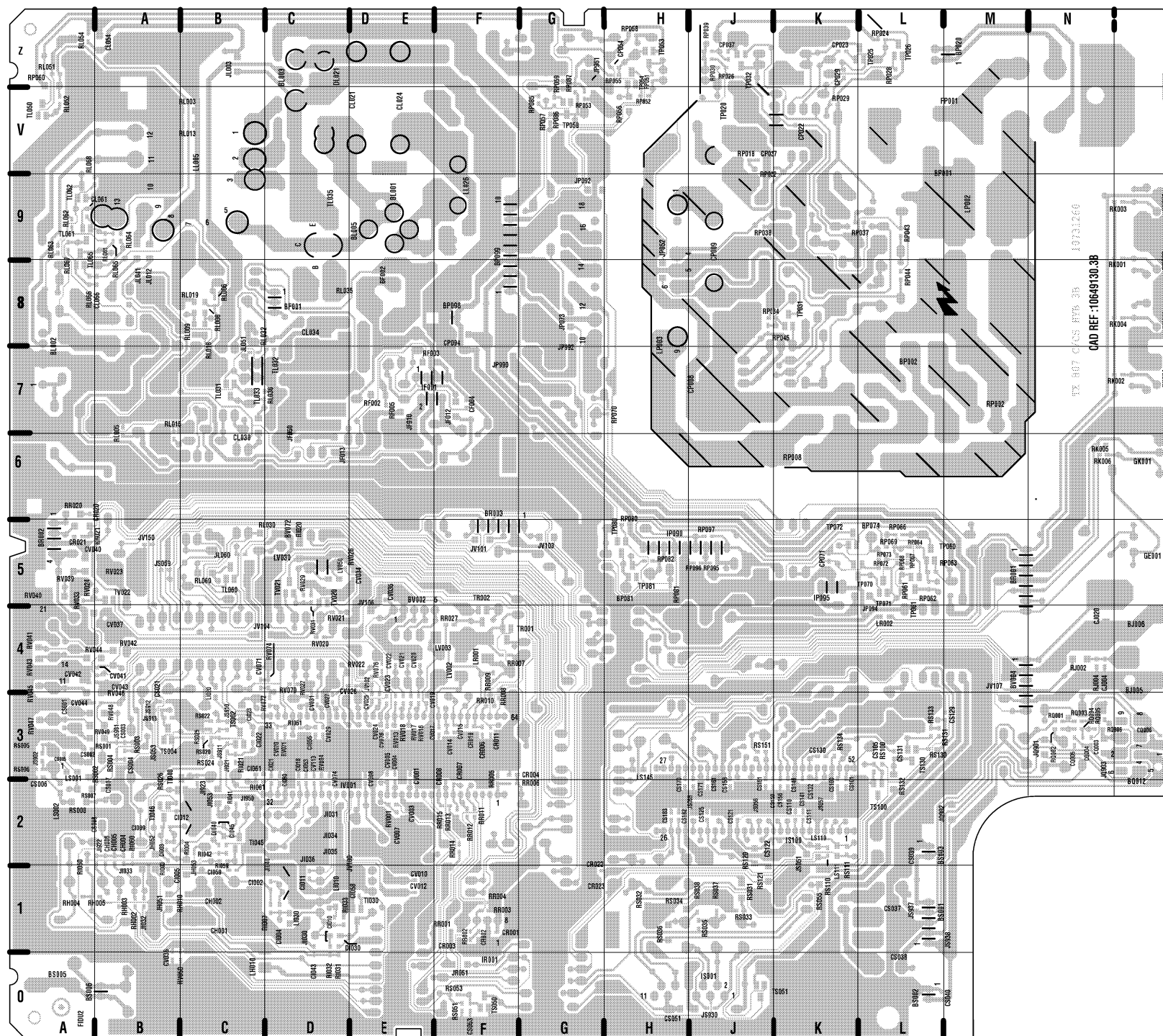




MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

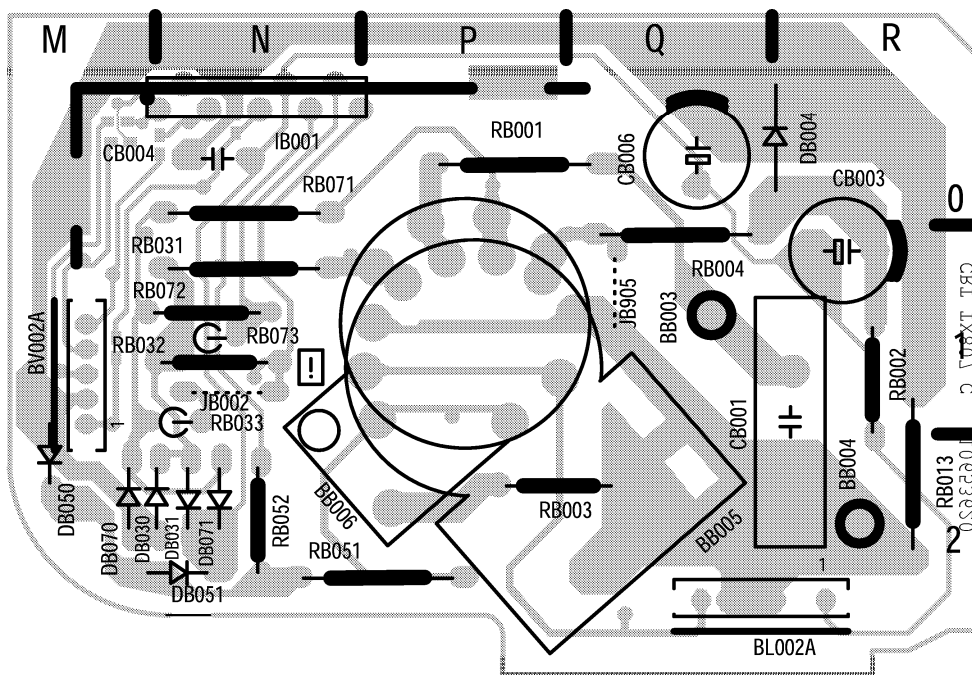




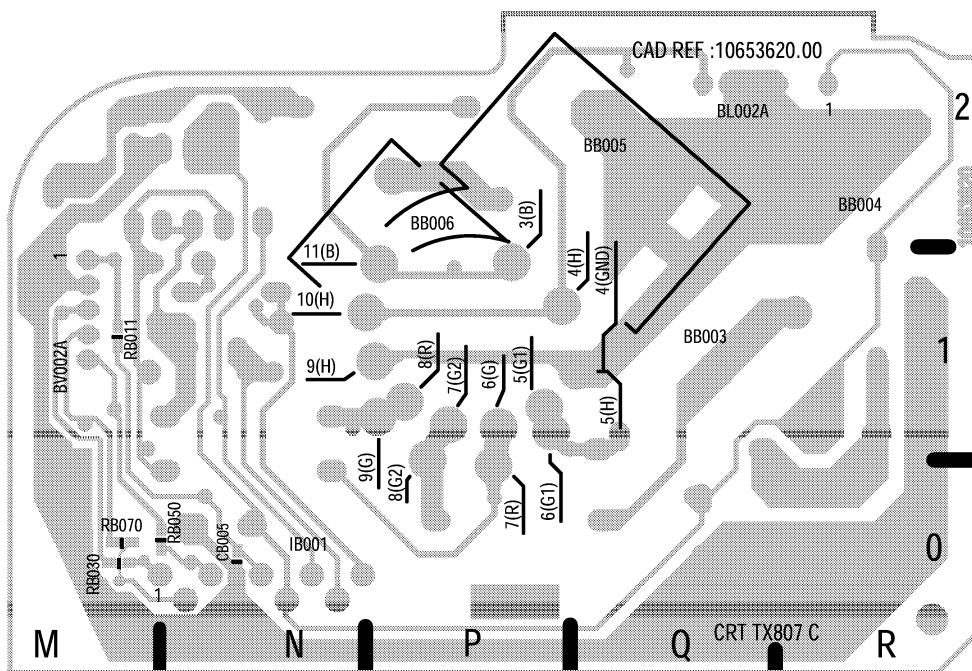


**VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO -  
VIDEOVERSTÄRKERPLATTE - PLATINA AMPLIFICADOR VIDEO -  
PIASTRA AMPLIFICATORE VIDEO  
CRT 80000.00 - CRT 80001.00**

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE -  
LATO COMPONENTI - LADO COMPONENTES

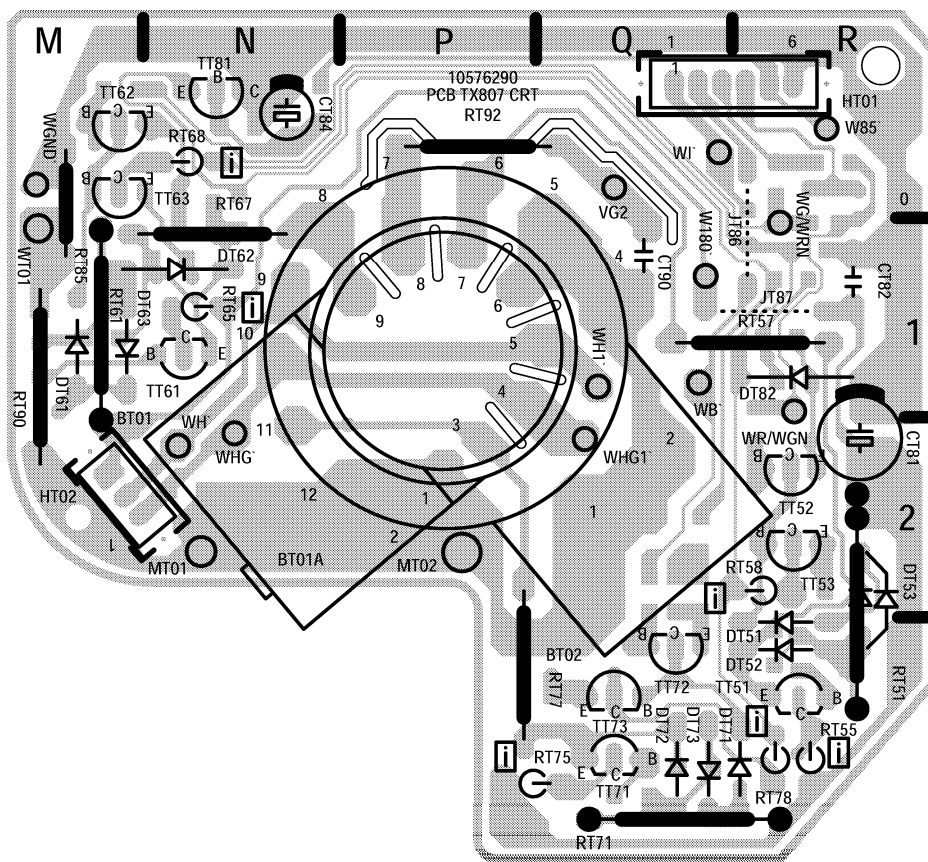


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

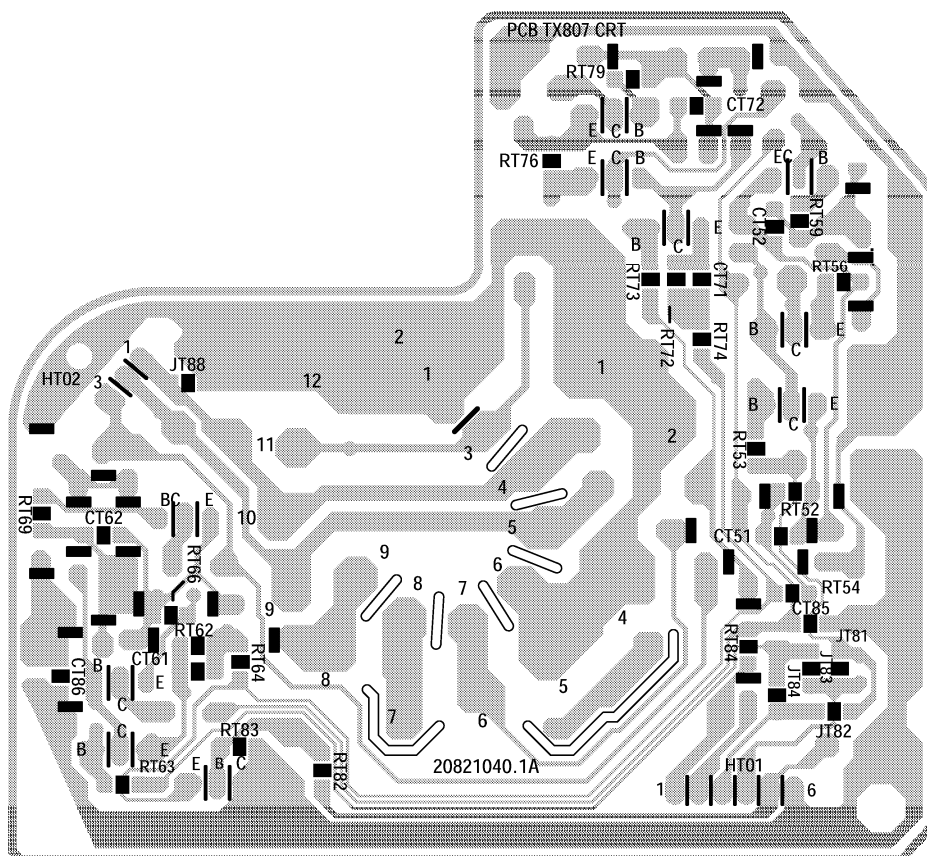


# VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO

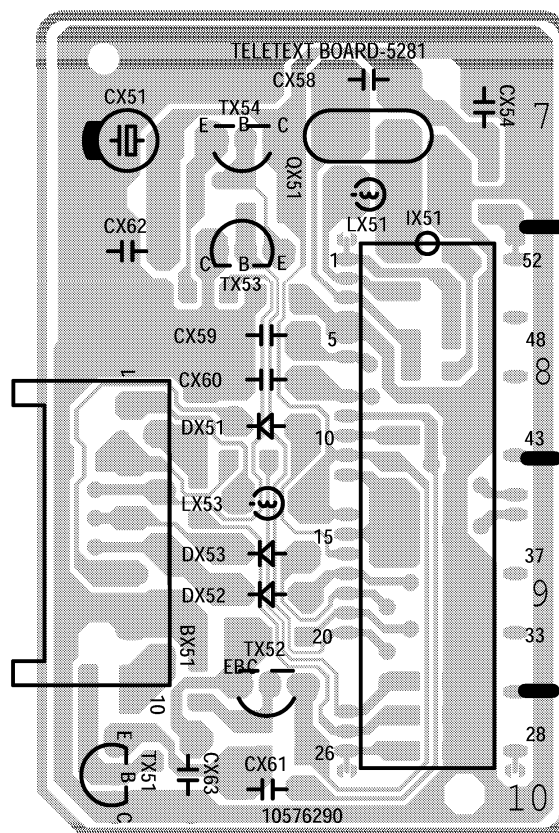
COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE -  
LATO COMPONENTI - LADO COMPONENTES



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE -  
LATO COMPONENTI - LADO COMPONENTES



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

